SUMMER TRAINING

AT STATE HEALTH SOCIETY, PATNA BIHAR

(April 1-May 31, 2015)

A

Report

On

A comparative study on out of pocket expenditure and burden on house hold in cardiac treatment.

And

To assess the knowledge, attitude and practice of beneficiary of routine immunization.

By

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Under the Guidance of

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MBA- Hospital and Health Management

2014-16

Institute of Health Management Research, Jaipur

INSTITUTE OF HEALTH MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that Vikash Kumar has completed the summer internship at State Health Society Patna, Bihar from 1st April to 31st May 2015 and has conducted the following projects under my personal guidance,

"A comparative study on out of pocket expenditure and burden on house hold in cardiac treatment"

"A study on knowledge, practice and attitude of beneficiary towards routine immunization"

All the data related to the study is the primary data collected by himself.

The approach to the project has been sincere, scientific and analytical. The work is partial fulfilment to the course requirements recommended for the Master of Business Administration in Hospital and Health Management, 19th Batch from Institute of Health Management and Research, Jaipur.

I wish him success in all his future endeavours.

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Date : 22/6/15

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. VIKASH KUMAR** *is a first year Student of MBA Hospital and Health Management of Institute of Health Management Research (IIHMR), Jaipur. He has worked as an intern at State Health Society Bihar, Patna for his summer internship program as part of course curriculum from* **01st April** *to* **31st May, 2015.** *He has also submitted the dissertation to State Health Society, Bihar, Patna.*

He is hard working and sincere towards his work. He has completed all the assigned tasks at the State Health Society, Bihar. I wish him all the very best for his future endeavors.

22.6.15

(Rahul Kumar)
Additional Executive
Director

Preface

The MBA course is well structured and integrated course of business studies. The main objectives of practical training at MBA level are 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 state health society patna, Bihar including the current status of the programmes. I also carried out a small study on-

"A study on OOP expenditure and burden on house hold in cardiac treatment."

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

We have no adequate words to express ours loyalty to God for showering his blessings over us and guiding us in our path and career.

We would like to express our gratitude to Mr. Anand Kishore (IAS), Executive Director, SHSB, who has given opportunity to us for summer training in State Health Society Bihar.

We would like to express our gratitude to Dr. JayatiShrivastava- Deputy Director Training, for her support and encouragement, kind and true guidance on our training and project whenever required and when spirits were down. She helped us by supervising our project, structuring, evaluating our report, carrying out our investigation and suggestion on the improvements. Lastly I would like to thanksDr.AshokKaushik Dean Academics and student affairs and Dr.LaxamanSaroop Sharma for their kind support and supervision which helped me in fulfillment of this project report.

We would like to thank Dr. Ghanshyam- UNICEF, Mr. BikashNayak- UNICEF, Mr. S.S.S Reddy- UNICEF, Mr. Gunjan Kumar Lall- Janani, Mr. Raffey- Save The Children, Mr. Arunabh – DFID, Dr. J.N.Diwan- SIHFW, Ms. Pallavi- UNFPA & last but not the least , we would like to say thanks to all who facilitated us for the kind help they rendered during the entire course with information regarding each data and additive guidance in finding what resource is available where & report writing.

Abbreviations

ICDS	Integrated Child Development Scheme
BTAST	Bihar technical assistance support team
OOP	Out of pocket
NHA	National health account
APL	Above poverty level
BPL	Below poverty level
DIFD	Department of international development U.K
IPD	In patient department
OPD	Outpatient department
OPA	Overseas development administration
PPR	Preliminary project report
SWASTH	Sector Wide Approach to Strengthen Health
ANC	Antenatal care
DEFF	design effect
MMR	Maternal mortality rate
HC	health centre
CBR	Crude birth rate
IMR	Infant mortality rate
TFR	Total fertility rate
NMR	Neo-natal mortality rate
MO	Medical Officer
MOHFW	Ministry of Health and Family Welfare
NFHS	National Family Health Survey
NGO	Non-Governmental Organization
NIS	National Immunization Schedule
NRHM	National Rural Health Mission
OPV	Oral Polio Vaccine
PHC	Primary Health Center
RI	Routine Immunization
RIMS	Routine Immunization Monitoring System
RIT	Regional Investigation Team
RNTCP	Revised National Tuberculosis Control Program
SC	Sub-Center
SHG	Self Help Group
SIO	State Immunization Officer
TB	Tuberculosis
TBA	Trained Birth Attendant
TSS	Toxic Shock Syndrome
TT	Tetanus Toxoid
UHC	Urban Health Center
UIP	Universal Immunization Program
VPD	Vaccine Preventable Disease
VAD	Vitamin A Deficiency
VVM	Vaccine Vial Monitor

Contents

NATIONAL HEALTH MISSION (NHM)

The Union Cabinet vide its decision dated 1st May 2013 has approved the launch of National Urban Health Mission (NUHM) as a Sub-mission of an over-arching National Health mission (NHM), with National Rural Health Mission (NRHM) being the other Sub-mission of National Health Mission.

NHM has six financing components:

(i) NRHM RCH Flexipool,
(ii) NUHM Flexipool
(iii) Flexible pool for Communicable disease,
(iv) Flexible pool for Non communicable disease including Injury and Trauma,
(v) Infrastructure Maintenance and
(vi) Family Welfare Central Sector component.

Within the board national parameters and priorities states would have the flexibility to plan and implement state specific actions plans. The state PIP would spell out the key strategies, activities undertaken, budgetary requirements and key health outputs and outcomes.

The State PIPs would be an aggregate of the district/city health actions plans, and include activities to be carried at the state level. The state PIP will also include all the individual district/city plans. This has several advantages: one, it will strengthen local planning at the district/city level, two, it would ensure approval of adequate resources for high priority district actions plans, and three, enable communication of approvals to the districts at the same time also the state.

The fund flow from the Central Government to the states/UTs would be as per the procedure prescribed by the Government of India.

The State Pip is approved by the Union Secretary of Health and Family Welfare as Chairman of the EPC based on appraisal by the National Program Co-ordinations Committee (NPCC), which is chaired by the Mission Director and includes representatives of the state technical and program divisions of the MoHFW and, national technical assistance agencies providing support to the respective states, other departments of the MoHFW and other Ministries as appropriate.

7

STATE HEALTH SOCIETY, BIHAR (SHSB)

The state Health Society Bihar is situated at Sheikhpura, Patna. It has been established in order to guide its functionaries towards receiving, managing, and account for the funds received from the ministry of Health and family Welfare, Government of India.

SHSB manages NGO, PPP (Public Private Partnership), components of the NRHM in the state including execution of contracts, disbursement of funds and monitoring of performance. The Government of Bihar has decided that SHSB will function as a resources center for the department of Health and family welfare in situational and policy development.

Basically SHSB strengthen the technical or management capacity of the Directorate of Medical and Health services Patna as well as districts societies by various means like recruitment of individual from open market and mobilize financial or non-financial resources for the supplementing the NRHM activities in the state.

There are some developing partners in Bihar which participate in the improvement of health in Bihar like:

1. Janani
2. UNFPA
3. Unicef
4. Save the children
5. DFID (B-tast)

STATE'S PROFILE

Bihar has a population of 10.38 million with a decadal growth rate of 25.07% as compared to the national growth rate 17.64%. The population density per square km is 1102 as against the national average of 32. The sex ratio is 916 per 1000 males and the

Literacy rate is 63.82%

Area in sq km: 94,163

Number of Divisions:9

Number of districts: 38

Number of sub division: 101

Number of C.D blocks: 534

Number of urban agglomerations: 14

Most populous district: Patna 5772804

Least populous district: Sheikhpura 634927

RCH INDICATORS

	2003	2005	2010	India 2010	2013
IMR	60	61	48	47	42
CBR	30.7	30.4	28.1	22.3	28.3
CDR	7.9	8.1	6.8	7.1	6.6
MMR		312	261	212	208

RCH indicators such as IMR & MMR are showing declining trends whereas Institutional delivery in government facility, complete ANC, contraceptive use in the state has increased. The current situation of the selected indicators based on NFHS-3, SRS & CES shows that overall the state is moving towards achieving the goals. Areas which are the main concern for Bihar are High MMR, High TFR, Poorly functional health system, Poor accountability, Delay in payment to beneficiary, Infection management.

STATE'S VISION, GOAL & STRATEGY IN HEALTH SECCTOR UNDER NRHM

- Universal access to primary.
- Provide affordable health care services.
- Decentralized health services.
- Community participation in health care.
- Strengthen health management information system.
- Encourage participation of Civil Society Partners in health service delivery.
- Private sector participation in Tertiary Health Care.
- Promotion of AYUSH services & their mainstreaming.
- Mobile Medical Services for difficult areas to improve access.
- Environment conservation (Bio-Medical Waste Management).
- Enhance performance of Public Health System by improving quality & ensuring client satisfaction.

VISITS TO VARIOUS DEVELOPING PARTNERS

UNFPA

UNFPA in INDIA:-

UNFPA, the United Nations of Population Fund, is an international development agency that promotes the rights of every women, man and child to enjoy a life of health and equal opportunity. UNFPA support country in using population data for policy and programs to reduce poverty and to ensure that every pregnancy is wanted, every birth is save, every young person is free of HIV/AIDS, and every girl and women is treated with dignity and respect.

UNFPA has played a critical role in assisting India in redirecting its population efforts away from family planning target and quotas and focusing instead on providing high quality services within a comprehensive reproductive health care system.

UNFPA is helping India in supporting the strategy indorsed by the 1994 international conference on population and development (ICPD), which emphasized the inseparability of population and development focused on meeting individual's needs rather than demographic targets. The key to this new approach is empowering women and its expanding excess to education, health services and employment opportunities.

FRAMEWORK:-

1. The Government of India (hereinafter referred to as "the Government") and United Nation Population Fund (hereinafter "UNFPA") signed the first country constitutes the basis upon which annul work plan (AWPs) shall be prepared and signed.
2. The CPAP is a five-year framework defining mutual cooperation between the Government and UNFPA covering the period 2013-17. It is prepared based on development challenges identify during the United Nation Development action frame work (UNDAF) planning process and conforms to UNFPA's Strategic plan (2012-13). It takes into account the Millennium Development Goals (MDGs), as well as the relevant approaches papers to the Government and the stakeholders, defines the board outline of the goals and the strategies that the Government and UNFPA jointly subscribe to, within agreed financial parameters.

PROPSED PROGRAMME:-

The eighth cycle of assistance, 2013-17, builds on the national priorities articulated in the XII five year plan of India as well as the United Nations Development Actions Framework (UNDAF) at the country level, which was based on the consultations with Government and civil society. Furthermore the UNFPA supported program is based on national ICPD-related goals and priorities and national MGDs. The UNFPA Country Program (CP) contributes to

selected results of the UNDAF and in turn to National priorities according to the UNFPA's comparative advantage in the country, building on past support and achievements.

Through its work, UNFPA will seek to achieve results with the six principles in mind: (a) promote the generation and sharing of knowledge; (b) foster innovative, scalable solutions; (c) involves the private sector; (d) encourages South-South collaboration; (e) strengthen institutional capacities; and (f) be guided by the rights based approaches with focus on the gender equality. In the context, Five Country Program outputs have been Formulated, which in turn fall under ad contribute to four outcomes of the UNFPA Strategic plan, as follows:

Young people's sexual and reproductive health and sexuality education.

- Output 1: Young people, especially the marginalized (scheduled castes, tribes and minorities) have acquired gender-sensitive knowledge on sexual and reproductive health and services.
- Output 2: Adolescents have access to gender-sensitive, life skills-based sexual nd reproductive health education in schools.

Family planning

- Output 3: Health systems are strengthened to provide high-quality sexual and reproductive health services, including family planning services, with a focus on vulnerable and marginalized populations.

Gender equality and reproductive rights

- Output 4: Strengthened and capacity of state and non-state entities to reverse son preference.

Population dynamics

- Output 5: strengthened national capacity to incorporate population dynamics in relevant national and sub-national plans and programs, with a focus on gender and social inclusion.

Job summary in Bihar

The adolescent health specialist under the supervision of the Director SRU and in close collaboration with SPO AH at SHS,TSU and UNFPA state office and the other team member in SRU will play critical role in ensuring that the adolescent health received sufficient technical support to achieve high rates of coverage and program is continuously supported with the state of the art knowledge , best practices and new and adapted tools and technologies. UNFPA is co-ordinating integration of adolescent health intervention with other technical areas such as maternal health, newborn care, family planning and nutrition.

Unicef

Introduction

UNICEF is one of the largest UN organizations in the world, its country head quarter is situated at New Delhi. There are around 13 states offices in India. It plays a major role to ensure the effective implementation of NRHM. UNICEF provides technical support to the State Health Society Bihar (SHSB) for **Immunization, Maternal Health and Nutrition &Training.** A consultant from UNICEF has been placed in the SHSB in order to directly communicate with the Deputy Director . It has already initiated the implementation of IMNCI program & supporting ANMs & provides Health equipment's to the ANMs & equipment related to the child health etc. In North India there is a polio unit available. Patna has the 3rd largest office in India in terms of HR & employee.

UNICEF has taken 44 districts in the country in which 5 districts is of Bihar and these are **Vaishali, Bhagalpur, Purnea& Gaya.** In which Vaishali has been considered as a experimental or focused districts.

Initiatives in Bihar

- **Skills lab:**

In order to decrease the IMR&MMR, a skill lab has been set up by the UNICEF at Patna City, Bihar. In which a three days training is given to the ANM. A setup has been done in Guru Govind Hospital, Patna City. It consists of 38 districts of 38 stations in which every ANM has to spend 5-10 minutes in each center & after the ringing of bell one has to shift from one station to another. It basically trained the ANMs how to take care of the babies and mother after delivery which consists of the equispment's like Radiant Warmer, Infusion pumps, Oxygen concentrator, Digital weighing machines etc.

For this purpose a MBBS doctor has been appointed by the UNICEF in order to provide the training to the ANMs. There is some mobile mini skill lab. Training of the ANM is also done at the PHC with the help of mobile mini skill lab.

- **Technical setups in Bihar:**

There are different equipments which have been set up in Bihar at the different PHCs, District Hospitals, FRUs and the medical colleges.

Hospitals	Services Provided	No of beds
PHC (Primary Health Centre)	NBCC(New Born Care Corner)	1
FRU (First Referral Unit)	NBSU (New Born Stabilization Unit)	6
DH (District Hospital)	SCNU (Special Care New Born Unit)	12
MC (Medical colleges)	NICU (New Born Intensive Care Unit)	22

- **NICU:**

In order to reduce IMR a setup has been done at the PMCH (Patna Medical College Hospital) known as NICU (New Born Intensive Care Unit) having 22 beds. It consists of radiant warmer, oxygen concentrator, etc to take care of the new born babies. In NICU less than one month baby are admitted who are suffering from **Hypothermia, Asphyxia, Jaundice, having low birth weight (LBW)**etc& one month if the baby needs some more care they shifted to the PICU (Pediatrics Intensive Care Unit).

- **SCNU**

A special care new born unit (SCNU) has been set up in the district hospital, Hajipur in Vaishali district which consist of 12 beds. It is having two units,**Inborn unit & Out Born Unit**. In **Inborn unit** those babies are admitted who has taken birth in the same hospital while in **out born unit** those babies are admitted who are referred from other blocks. In this department also babies which are suffering from **Hypothermia, Asphyxia, Jaundice , LBW etc** has been admitted &in the SCNU Hajipur majority of cases occur of **Hypothermia.**

SCNU Hajipur is having 5 ANMs, 3 Doctors, 4 Training Doctors, 8 A grade staff nurses and 1sweeper. There is a 2 bedded breast feeding room & 1 doctor's room.

The equipments available there are 12 Radiant warmers, 4 Infusion pumps, 4 oxygen concentrators, 12 oxygen hoods, 4 phototherapy machines, 4 vital monitors, 2 Digital weighing machine, Multipara monitors. A phototherapy treatment is given to babies suffering from jaundice.

- **NBCC**

PHC having 1 bedded new born care corner to take care of the new babies. As PHC at Vaishali was also having one NBCC unit.

Departments of UNICEF

1. **HEALTH**
   It is having four wings which works in the five districts of Bihar i.e. Vaishali, Bhagalpur, Darbhanga, Purnea& Gaya. The wings are as follows:
   - **I. Capacity building**
   - **II. Routine Immunization (RI)**

It is responsible for the immunization activities in the selected blocks of the districts in which different targets have been set for different months.

- **III. Family Friendly Health Initiatives(FFHI)**

It has been given the responsibility to make the make the hospitals family friendly and it takes care of the requirements of the hospitals, number of HR& staff required etc.

For the purpose to show the amount of development occurred in the past in the past in the different blocks and what were the changes that happened, a poster presentation has been done with the people who have been given the responsibility of**Darbhanga district.**

- **IV. Quality Assurance**

It takes care of the quality of services provided in the hospital like A/C is working properly or not, registers have been maintained or not etc.

2. **Nutrition.**

Projects under Nutrition

- Supporting VHSND(Village Health Sanitation and Nutrition Day)
- WHO-GS roll out
- Integrated Nutrition Project(NSS)- with NRHM
- Vitamin A Supplementation
- USI/IDD (Universal Salt Indies)-With NRHM
- NRCs-With NRHM
- VHSNDs-With NRHM

3. **Water & Sanitation**

It takes care of the quality of water and sanitation behaviour of the people.

IMNCI(Integrated Management of Neonatal & Childhood illness)

It is a clinical package developed by WHO & UNICEF which has been adapted to include neonatal care at home visits being rolled out in Bihar. This project focuses on the newborn & the under tree child. It promotes home visits, care at birth, counseling, as well as

identification, classification and treatment of main illness by providing training to the anganwadi workers (AWW) & community health workers i.e. ANMs.

ORS/Zinc Therapy for Diarrhea

In order to benefit of ORS with adjunct zinc therapy for children suffering from diarrhea, Bihar has adopted policy to introduce zinc with ORS in the management of all the cases of childhood diarrhea in line with WHO/UNICEF recommendations. This policy offers vital opportunity for saving the lives of children, but must gain momentum to be quickly & effectively rolled out.

SAVE THE CHILDREN

Ninety years ago one women, EglantyneJeeb , started a worldwide movement. She was driven by the belief that all the children – whoever they are, wherever they are- have the right to be healthy, happy and fulfilling life. And the belief that all change is within reach, if we have courage, determination, imagination and good organization. We know change is possible. Save the children's experience in changing children's lives for the better in the past decades is the foundation for what we do today and tomorrow to build a better future for children.

MISSION STATEMENT:

To inspire breakthroughs in the way the world treats children, and to achieve immediate and lasting change in their lives.

OUR VISION:

A world in which every child attains the rights to survival, protection, development and participations.

Their core workings area:

The four working area of Save the Children:

- Health
- Education
- Disaster and Risk Reduction
- Child protections

1. "Save The Children" is basically working on the Rights of the children and we came to know about what "Rights" exactly means.
2. "Save The Children" is framing the Strategies, polices, interventions and also gives technical supports to local NGO's.
3. "Save The Children" is working on its vision and mission and the 5 values:
    - Accountability

- Ambitions
- Creativity
- Collaborations
- integrity

4. We came to know about the Strengthening Materials, Newborn child health and Nutrition Services in two district of Bihar State Sitamadhi and Gaya(Riga and Mohanpur blocks).
5. ”Save the children” is not only working independently but also within collaborations along with local partners like Agragami India, Charm.
6. “Save The Children” have two priority programs contributing to MDG4.
    - Ensuring Neonatal survival.
    - Controlling under Nutrition and ensuring the child health.

JANANI

A non-profit organization that provides family planning and comprehensive abortion care services in the states of Bihar, Jharkhand and Madhya Pradesh.

Janani is situated at Kidwaipuri, Patna, Bihar. For the family planning purpose it has set up surya clinic. Janani is affiliated to DKT- International, a non-profit organization based in Washington D.C. With 17 programs across 16 countries, DKT is one of the largest and most cost-efficient social marketing organizations in the world.

Mission

To provide the cost effective services to the poor peoples and safe options for family planning, health and reproductive health care through cost effective intervention.

Vision

To improve the reproductive health through innovative social marketing of the family planning products.

Janani has different channel of delivery

Janani also provides training in Family Planning and Comprehensive Abortion Care at our government approved training centre. The on-the-job training program is offered to doctors and nursing personnel, lab assistants, OT assistants and is held at the state-of- the-art Surya Clinic and Training Centre in Patna.

The course offers Training and Certifcation in:

Family Planning

- Insertion and removal of IUDs

- Female sterilization with and without anesthesia
- Male sterilization by the no-scalpel method
- Contraceptive counseling

Comprehensive abortion care

- Surgical abortion by the manual vacuum aspiration technique without anesthesia
- Medical abortion
- Post abortion care

Facilities

The three-month long training program is open to both Indian as well International candidates. Some of the features of our training program include:

- Monthly stipend
- Lodging and food at our hostel
- 24 hour free access to the Internet
- Access to a well-stocked library
- Use of a study center and gymnasium

SURYA CLINIC

Surya clinic set up for the safe and comprehensive care services through a network of doctors began in 2000. The main emphasis is on the enhancing the doctors skills and paramedical routine procedure. It is accredited by the government and provides related to the family planning. Currently there are 35 surya clinics in Bihar and Jharkhand in patna there are 2 clinics

By 1972 Act abortion has been legalized up to 20 weeks.

CHAGES AND OTHER SERVICES

Registration –95

Test-100(cooper-t +MTV in which 50 is return to the patient)

OPD daily patient flow 40 in which 20 is new.

Test -10

Bed -15

OT-3

Nursing area for nurse -1

Lab tech-2

Doctor-4(permanent 1, OTCM-3)

Front desk manager -1

Councelar-1(Do not maintain privacy)

Drinking water facility

NO delivery till now

In case of male sterilization Rs. 1000 is paid as motivational amount Rs. 400 is given to the person(ASHA/ANM) who brings the person for sterilization.

MTV+Sterilization is being charged 2500 each patient.

PATIENT FLOW IN SURYA CLINIC

Patient entry toclinic(Motivators', self, quacks)

Counseling(what is want and given chance to choose)

Test

Doctor visit.

Doctor visit and counseling

Counter (paper work)

Nursing station (BP. Injection etc)

OT

Ward(1/2 for rest)

Discharge (if patient is normal)

Service at SURYA clinic

Women tubectomy	1500	Free
Man vasectomy	-1500	Free
Copper t cu 380A	150	Free
Copper t cu 375	200	
Copper t (after delivery& abortion)	50	
Copper t (after delivery& abortion)	100	
Garbhnirodh inj.(1^{st}, 2^{nd})	120	
Garbhnirodhinj(3^{rd})	65	
Abortion (12 week)	800	free
D&E	1100	
Abortion(20 week)	2500	
Family planning advice	95	
After delivery check up	10	

Pregnancy test	25	
Clinical test	90	

FUNDING

Janani relies on several sources for funding.

- Ministry of Health and Family Welfare
- Revenue generated from the clients
- Revenue generated from sale of products

Current Donors

- David and Lucile Packard Foundation

DKT International

PRODUCTS

Mithun	condoms with reservoir tip.
Apsara	Oral Contraceptive pills
Urvashi	(IUD) Cu375
Pari	Contraceptive injection
Postpil	Emergency Contraceptive Pills
Safe-t-kit	Medicinal Abortion Kit

The **"Standard Operating Procedures (SOPs), Support Services"** developed by the technical team at the Surya Clinics is aimed at improving the functioning of the clinics, standardisation of procedures across all clinics as well as documenting these processes for future reference.

Janani also do a field work in which they promote family planning among villagers. They are having a van in which all the needs equipments, manpower, copper T are available to perform family planning. During the field visit generally do not charge in rural area.

Janani also does campaigning to advertise its products and spread awareness among the people and for this it has to take permission from the **State Health Society**.

OBSERVATION

Janani is having good space, Manpower. Infrastructure.

Janani is having different section for different activities.

Patient inflow is good and also satisfactory among patient.

Employees are devoted to work and having good relationship with patient.

Recommendations:

The quality of family planning services more attention should be focused on certain critical aspects.

Waste management protocols need to be monitored.

There should be separate counseling room to maintain privacy.

SIHFW

State institute of health and family welfare is an apex training institute. It provides the need based training. In Patna it has been established under the department of health, medical education and family welfare, GOB wide state cabinet decision 14- 07-94. It has been registered under SHSB by 1999. SIHFWis collaborative training institute of the national institute of health and family welfare (NIHFW), New Delhi for the state. Main objective of this institute is to promote health and family welfare program in the state through education, training services, research and monitoring in health sector.

- SIHFW helps in the preparation of the pip for the training and then sends it to the GOI.

-It provides training to the peoples of UNICEF,UNFPA,social welfare and all the developing partners.

Before providing the training it takes the pre- test of the person who has to be given training to know the level of the knowledge and after completion of the training a post -test has been conducted to know the level of improvement which has occurred.

-The trainers in SIHFW has been first trained by the NIHFW and then these trained trainers provide training to the district level.

- There regional training centers are at Patna, Muzaffpur,and Bhagalpur under health and family welfare and there are 21 ANM training centers.

  Governing body of SIHFW

Chairman	Developmental commissioner
Vice chairman	Principal secretary, department of health and family welfare
Member secretary	Director SIHFW

- Number of faculties = 4
  Assistant professor = 3

  INFRASTRUCTURE OF SIHFW FOR TRAINING
  - One auditorium with audio visual facility with seating capacity of 126 people.
  - One lecture theatre with the seating capacity of 60 persons and four lecture theatres with the seating capacity of 30 persons.
  - One modern MCH lab with seating capacity of 16 persons.
  - One committee room with seating capacity of 16 persons.
  - Library is equipped with the books on the computer sciences , management health sciences statistics and other allied subjects, training modules and reports. It is also having a reading room for 30 persons at a time.
  - SIHFW is also equipped with the computer room which is having different types of printers.

    TRAININGS PROVIDED BY SIHFW
    - Skilled attendance at birth(SBA)
    - IMNCI for aganwadi workers
    - IMNCI supervisor training
    - MAMTA TOT
    - Professional Development course for MoI (PNC)
    - TOT IUD Insertion
    - AYUSH(medical officers TOT)
    - AYUSH(MEDICAL officers YOGA foundation course)
    - PC-PNDT act 1994
    - Immunization training (MOI/C)
    - ARSH
    - Mini lap
    - Vitamin-A
    - Pedagogy
    - Disaster management

- Measles sis tot training
- Child health supervisor training
- RI tot training
- Orientation of monitors for training programs under NRHM
- The institute has collaborated and conducted training
  Workshop on homeopathy (national campaign)
    - TOT for food and nutrition extension unit GoI
    - Cd 10 training for regional office of MHFW govt. India.
    - ASHA tot for pranjal
    - IMNCI review meeting
    - FRU s

DFID (Department of international development),UK

DFID was set up in 1997 for the purpose of fighting world poverty as major priority. It has been marked as turning point for British aid program, which until then had mainly involved economic development. DFID was headed by the cabinet minister. Previously this program was managed by the overseas Development Administration (OPA), which is a wing of Foreign and commonwealth office. The main objective of DFID is to make global development a national priority and promote it to UK and overseas, and to establishing a new relationship with the government for developing countries.

-Bihar is the 5th state where DFID has been come in action. First was Andhra Pradesh followed by West Bengal, Madhya Pradesh, and Orissa

-partnership of DFID with Govt. of Bihar occurred in 2007 and accepted by GoI IN 2008 along with preliminary project report(PPR). And proposed DFID to prepare detailed program.

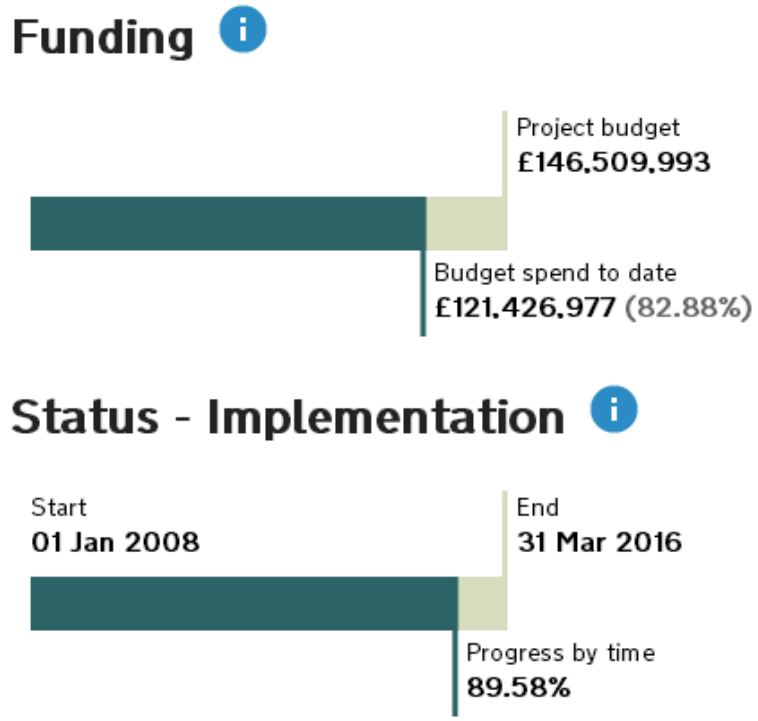
-Govt. of Bihar is working on program Bihar Health Sector Reform Program. (SWASTH)(2009-10 TO 2014-15) with goal to improve the health and nutritional statues of people in the state. The purpose of the program is to increase access to better quality health, S

SWASTH(swath wide approach to strengthen health)

Given the scale and nature of interventions envisages under SWASTH it is imperative that a unit be set up within the department to manage and oversee the health related interventions on a day-to-day basis. To be truly effective, this unit would need to e properly managed and functionally empowered to take critical operational and financial decisions. The unit will e headed by the Director Program Management unit.

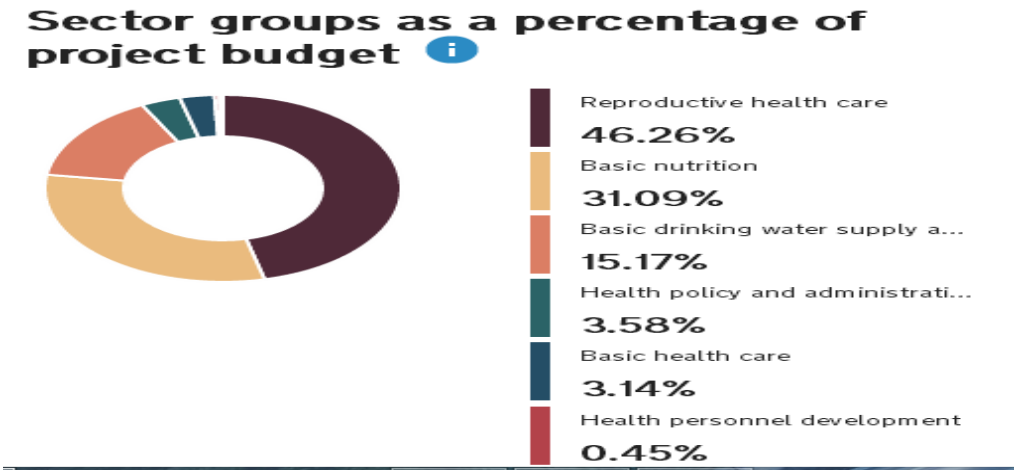
this program is based on wide consultation with UNICEF and water Aid. It also takes account of NRHM, ICDS, and the accelerated rural water supply program. The duration is 6 year and is divided into three phases of two years each. The FA will end in December 2015.

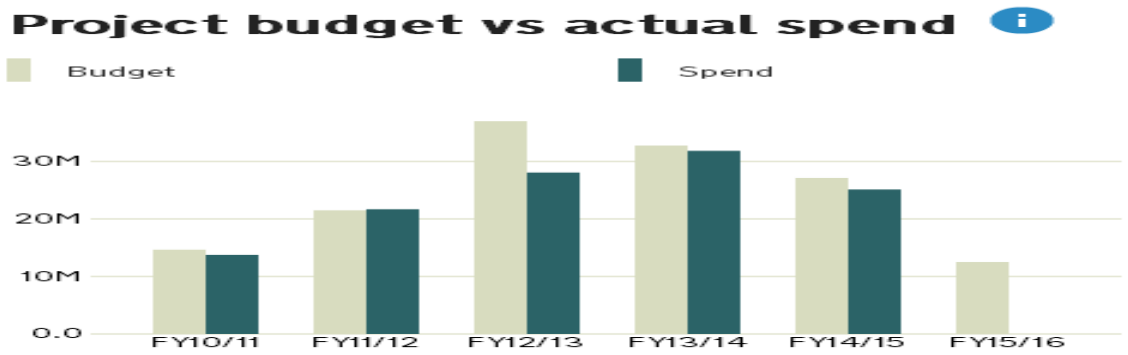
Current status of SWASTH in BIHAR



Implementing organization

- Donor country-based NGO
- NON-GOVERNMENTAL ORGANISATIONS (NGOs) AND CIVIL SOCIETY
- Other.
- Recipient Government
- University, college or other teaching institution, research institute or think-tank





In order to support SWASTH program DFID has appointed B-TAST (Bihar Technical Associate Support Team) in Bihar.

As the Team Leader will be accountable for all aspects of planning, implementation, monitoring, budgeting, reporting and coordinating technical assistance provisions of the project. As well as leading the team and providing direction for addressing programmatic gaps through effective monitoring, you will also be required to engage in advocacy efforts with the implementing departments particularly on policy level interventions on health, nutrition and water and sanitation sectors. Maintaining regular liaison with both the government and the donor will be amongst the core responsibilities of the position. You will also be responsible for coordinating with the other members of the consortium to ensure that objectives are met.

.DEPARTMENTS UNDER STATE HEALTH SOCIETY

(A)INFRASTRUCTURE

Mr R B P Yadav (Retired IAS) Consultant Infrastructure

- Funding for the infrastructure done by NRHM.
- As per the demand from the district this department mentions the requirement and amount of fund in PIP.
- It take care of the district wise funding as needed for hospital construction, infrastructure.
- There are 76 FRUs, 534 PHCs are working in Bihar.

Procedure for the proposal

MOIC or Superintendent sends the proposal to the DHS & DHS further sends proposals to the infrastructure department at SHSB & then this department forwards this proposal to the

Types	Work

ED of SHSB & then after accepting the proposals ED allots the work to the Building Co-operate Bihar Medical Services &Infrastructure Co-operation which does the development & construction work.

(B)Nursing department

Dr Y N Pathak (SPO Nursing)

Objectives

The main objective of this department is to open more & more nursing school in Bihar to increase the number of ANMs, GNMs & to strengthening the school to come over the poor health indicators in Bihar.

As the main motive of this NRHM is to achieve the target in the limited period of time & GOI is welfare so every state has equal right to get equal opportunity.

Types of Nurses & their work

- There is 85% funding is done by the NHM & 15% funding is done by the state government.
    - Among 26 schools, 20 are ANMs school and rest are from the GNMs school.
    - It has been planned to open 10 ANM & 10 GNM school in the upcoming years.
    - In order to train the ANMs 4 mini skill labs each in 8 districts by the support of care,UNICEF,MELINDA GATES,SHSB etc.

(Auxillary nurse midwives)	Support the GNMs& also does the field activities like RI,ANC check-up etc.
(General nurse midwives)-A Grade	Works in the district hospitals & medical colleges,& can do IV,Blood
(Block public health nurse)	
public health nurse)	

- **102 & 108 services**

  102 and 108 are toll free numbers given by the government of India to the Ambulances needed for transfer of emergency medical cases. These calls are diverted to a central call centre. The ambulances are well equipped with GPS and the drivers and emergency medical Technicians (EMT)have mobile phones. These ambulances are run on a PPP mode.

  The following sections of society receive services free of cost :

  - Pregnant women from home to nearest health facility and then back home.
  - Newborns from home to health facility and back home.
  - Accident cases.
  - Senior citizens.
  - BPL paitents.

For other beneficiaries 9 rupees/km are charged from the point of pickup to point of drop.

In Bihar there are 504,102 ambulances with Basic Life Support (BLS) which run within the districts. 50 is the number for 108 ambulances of which 45 are BLS and 5 have Advanced Life Support(ALS), which is basically for cardiac emergencies. These 108 run between the districts.

(C) HR DEPARTMENT

It take care of 3 departments

1. **Requirement & HR issues**

- It take care of recruitment in the State Health Society.
- Deal with the HR issues like Salary problem, CL& DL.
- Salary has been funded directly by NRHM.
- At DHS establishment cell is responsible for the recruitment.

2. **Radiology & Pathology**

- Also see the radiology & pathology department in the hospital & make the timely payment of the radiology & pathology which works on PPP mode.
- In pathology department test is free in Bihar at Government hospitals & the expenses have been bore by NRHM.
- There are 350 hospitals and PHC equipped with X-rays.

3. **Legal issues**

This department resolves the legal problems like cancellation of the contract, challenges against the requirement which is applied by the applicants who has not been selected, payment not on time, patient not satisfied with the medication, outsource organisation which works on PPP mode.

(D)RKS (RogiKalyanSamiti)

Dr. R.N Dwivedi (SPO)

It is a committee which has been set up at the hospital level to manage, regulate & supervise the hospital facilities & fulfill the requirements. These committees arepresent at PHC (Primary health Centre), FRU(First referral unit), Sub divisionalhospital& DHS(District hospital) levels in Bihar.

- The concept RKS came from Madhya Pradesh.
- Committee has of 9-11 members.
- It's almost an autonomous committee & maintains hospitals.
- There are 19500 RKS in Bihar.
- Firstly RKS has to register under Society Act then the power has been given to the RKS committee & works like NGO.
- RKS has the power to take decision but under the government guidelines**.**

Committee consists of

- Government Officials.
- People from NGOs.
- Public representatives.

- Beneficiaries.

Funding RKS:

- Seed money of Rs100000 has been given to PHC for RKS annually & at the district level seed money of Rs.500000 has been given annually from NRHM.
- United fund goes to RKS of Rs25000 & for annual maintenance grant of Rs50000 is given to the RKS.

(E)MONITORING & EVALUATION

MsJyotiVerma - Deputy Director, Monitoring & Quality Monitoring.

This department emphasizes on the proper working behavior of the government hospitals & doses the regular monitoring to know the status of the task which has been provided to the hospitals.

- . It also provides the ISO certificates to the organizations for the 46 facilities. District hospital Ara is one of the ISO certified hospital. This year a proposal for laboratory certification has been planned.
- CBPM (Community based planning & monitoring) has been established in the 5 districts of Bihar & the selected districts are Bhagalpur, Darbhanga, Nawada, Gaya, &Nalanda.
- Village planning monitoring committee is present at the village level. & Block planning monitoring committee is present at the block level.
- Nigranisamiti has been formed for the purpose of monitoring at the PRI level.
- Two nodal officers have been allocated for each district
- VHC is at the Panchayat level which is a combination of PHED, PRI & IDSP.

(F) FINANCE CELL

Mr K L Das- FinanceManager

This department takes care of the distribution of the funds to the different districts on timely basis & does the regular monitoring of the utilization of fund.

- 85% funding is from NRHM & 15% funding is from the state government.
- 90% of the fund is given to the districts.
- At district level fund has been given to the DHS & then it transfers the required fund to the block.
- FMR is send by the districts to the state on the regular basis in 19A from.
- This cell also generates financial rules.

(G) IDSP (Integrated Disease Surveillance Program)

Dr. Ragini Mishra– State Epidemiologist, IDSP

This department does the micro planning for different diseases &funds have been released to the different wings of the IDSP according to micro plan requirements.

- There are 41 diseases under IDSP cell to come over the outbreak& mainly 22 focused diseases. There some of the diseases are AFP, Measles, Chicken Pox, Diarrhea, Food Poisoning etc.
- Reporting is on weekly basis by the districts.
- There are three forms which has been filled by the block these are

1. P-form (Presumptive form)

2. L-form (Lab form)

3. S-form (Synchronized form)

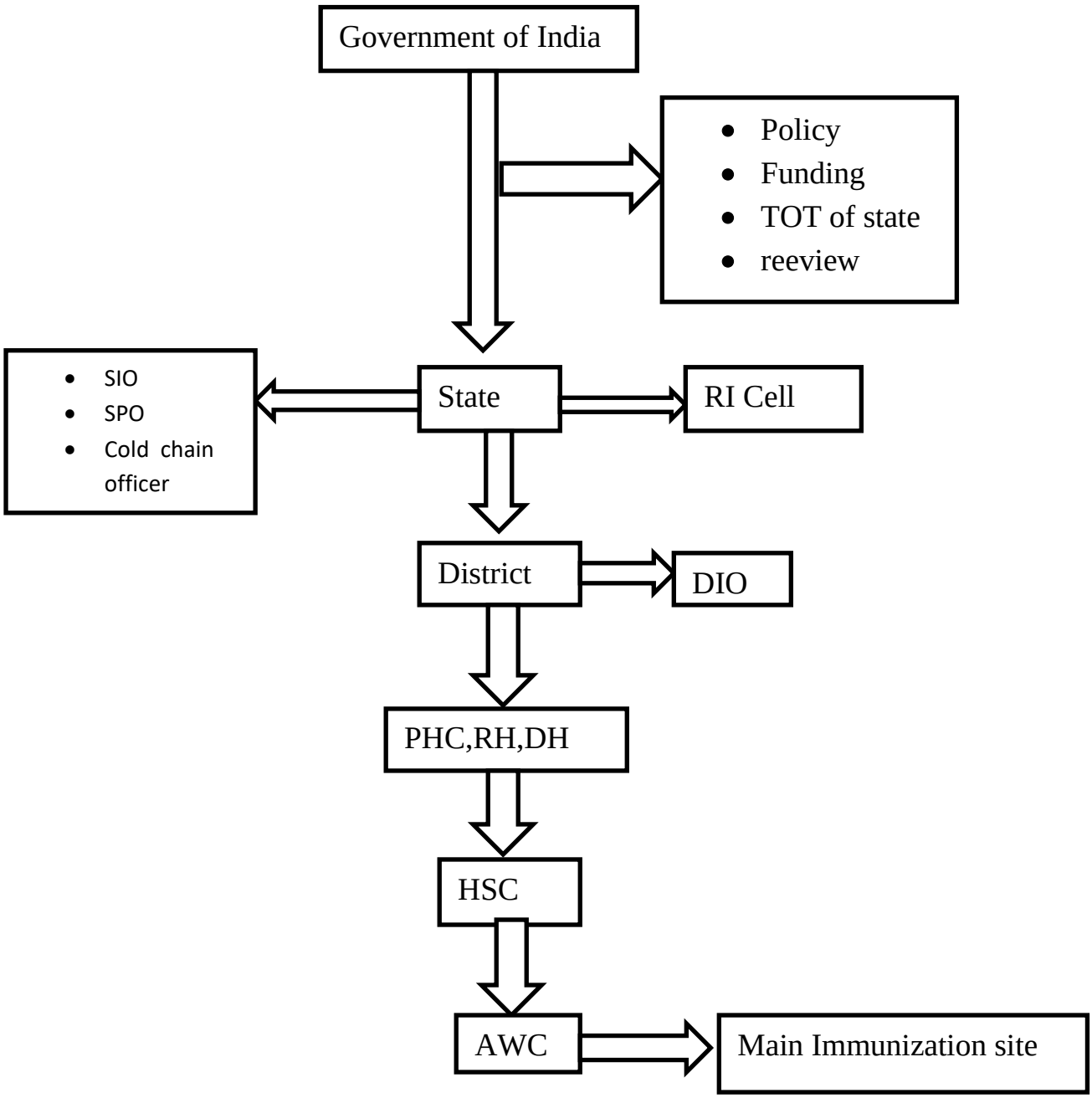
- P- form, L-for & S- form respectively has been filled up by the sANMs at PHC which send the report to the District surveillance & then it further send to the State surveillance.
- EWS are mentioned in the every form.
- There is a target level has been decided for every disease

(H) RI (Routine Immunization)

Mr. Ram Ratan- SPO,RI& Polio

- It takes care of the immunization program running in the state.

Immunization chain



- Government of India leads to the policy making, funding, training of trainers (TOT) of state & does the review meeting.
- At state level SIO,SPO& Cold chain officer leads the RI cell and its monitored has by the DIO, NPSP,& the developing partners like UNICEF, Care, Nipi.

Procedure of sending the required thing for immunization.

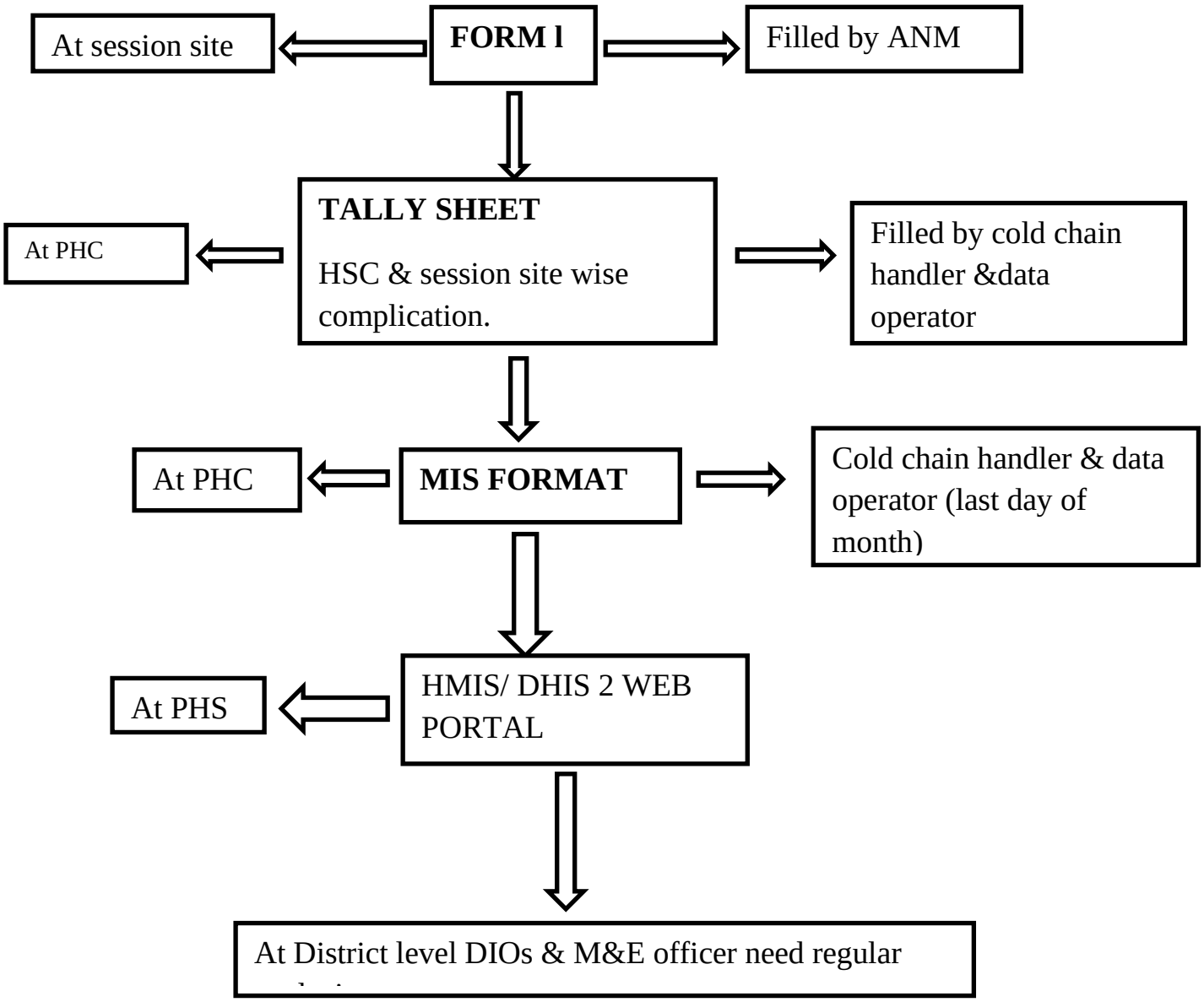
- From PHC logistics like Vaccines, Syringes, White & Red bags, Hub cutter etc through courier reach to the AWC from PHC.
- the courier person gets Rs 50 for per session & for hard to reach area Rs 100 per session.

WORKFORCE

ANM, ASHA, AWW, Courier are the workforce for the immunization.

- ANMs head the session & do vaccination activity.
- ASHAs do the mobilization as per the due list& also promote IEC &BCC.
- AWW take care of arrangement & cleanliness of thae RI session site or AWC.

HMIS ENTRY SYSTEM FOR RI



- HSC wise monthly MIS report will be prepared & on the basis of tally sheet & verified by MOIC
- They have started a program known as **MUSKAN EK ABHIYAN** in 2007 for the routine immunization in which around **17616 ANMS & 83000 ASHAs** are working for this program & there is a requirement of **5633 ANMs.**
- There has been 68%immunization has been achieved the target is to reach 85% by 2012 .**Year 2012** has been announced as **YEAR OF IMMUNIZATION** in Bihar.

INCENTIVES GIVEN FOR RI

Number of beneficiary	Incentives for ASHA
5-10	Rs 150
11-15	Rs 100
16-20	Rs 150
>20	Rs 200

Number of beneficiary	Incentives for ANM
0-15	Rs 50
>16	Rs 100

SUPPLY CHAIN OF VACCINE

- GOI sends vaccines & logistics to the PHI at Patna, Bihar where it has been stored in WIC (Walk in cooler) & (Walk in Freezer).
- From WIC Vaccines goes to the District cold chain storage point.
- Then it goes to the PHC & from there it goes to the RI sites or AWC.

- There are nine regional storage points in Bihar, these are **Bhagalpur, Darbhanga, Muzzaffarpur, Purnea, East Champaran , Saharsa, Aurangabad, Nalanda& Saran.**

- The vaccines which is expire after 4 hours after open the vital are BCG & Measles, & after 2 hours are **JE(Japanese Encephalitis)** and if the time is more than that it results to **AEFI (Adverse event following immunization).**

- On the vital of the vaccines a **VVM** indicator is present i.e. Vaccine Vial Monitor which changes the color slowly and gradually it indicate the vaccines expiry.

POLIO

Path of the Vaccines to reach the ground level.

- Polio vaccines comes to the state where the NPSP cell & WHO unit are present from there it goes to the district level where micro plan has been made in which UNICEF also helps to make the micro plan. Then it comes to the Block level and then to the PHCs.
- There are more than 99 percent of polio immunization coverage.

- For polio there is **SNID(State National Immunization Day) & NID (National Immunization Day)** were made

(I) MCH DEPARTMENT

MR. Gauravkumar, Deputy Director ,MCH

MCH components

- Ante natal care
- Intra natal care
- Post natal care and newborn care
- Safe Abortion Services as per MTP Act
- Management of RTI/STIs
- Family Planning Services as per the FP Guidelines

Ante natal care

In ante natal care minimum 4 ANCs checkup including registration.Physical examination + weight + BP + abdominal examination, Essential lab investigations (HB%, urine for albumin/sugar. pregnancy test).180 IFA tablet before pregnancy after pregnancy.TT immunization.

Intra natal care

At the SBA level Normal delivery with use of photograph Infection prevention, Pre-referral management for obstetric emergencies, e.g. eclampsia, PPH, shock services are being given to the pregnant women. At the institution level (PHC, CHCs,) Stabilization of patients with obstetric emergencies, e.g. Eclampsia, PPH, sepsis, shock, Episiotomy and suturing cervical tear shock services are being given to the pregnant women. Institutional (Comprehensive Level) (DH, SDH, RH, CEmONC, selected CHCs.) All services including SBA LEVEL,INSTITUATION LEVEL and Management of obstructed labor ,Surgical interventions like Caesarean section Comprehensive management of all obstetric emergencies, e.g. PIH/Eclampsia, Sepsis, PPH retained placenta, shock etc.

Post natal care and newborn care

At the SBA level Home visits on 3rd, 7th and 42nd day, both for mother and baby, are needed. Additional visits are needed for the newborn on day 14, 21 and 28. Further visits may be necessary
for LBW and sick newborns.

- Minimum 6 hrs. stay post-delivery Counseling for Feeding, Nutrition, Family Planning, Hygiene,
- Immunization and PN check-up

At the institutional level (24X7 PHCs, CHCs other than FRUs) 48 hours stay post delivery and all the postnatal services for zero and third day to mother and baby Referral linkages with higher facilities .
Institutional (Comprehensive Level (DH, SDH,RH, selected CHCs) . All at SBA level, institutional level and Clinical management of all maternal emergencies such as PPH, Puerperal Sepsis, Eclampsia, Breast Abscess, post surgical complication, shock and any other postnatal complications such as
RH incompatibility etc.

Safe abortion as per MTP

SBA Level - Counseling and facilitation for safe abortion services Institutional (Basic Level) PHC-Basic Obstetric and Neonatal Care (24X7 PHCs, CHCs other than FRUs) same as SBA level Essential – MVA up to 8 weeks Post abortion contraceptive counseling Referral linkages with higher centre for cases beyond 8 weeks of pregnancy up to 20 weeks.

Institutional (Comprehensive Level) FRU-Comprehensive Obstetric and Neonatal Care (DH, SDH, RH, CEmONC, selected CHCs) same at SBA level and institutional level Second trimester MTP as per

MTP Act and Guidelines Management of all post abortion complications.

Management of RTI/STIs

At the SBA and institutional level Counseling, prevention and referral, Identification and management of RTI/STIs these services are being given.

Family Planning Services as per the FP Guidelines

Emergency contraception pills,Counseling, motivation for small family norm, distribution of condom, oral contraceptive pills, IUD insertion.Follow-up services for contraceptive acceptors, including post sterilization acceptors.

Desirable - Male Sterilization including Non-Scalpel Vasectomy + Tubectomy. Male Sterilization including Non-Scalpel Vasctomy.Female Sterilization (Mini-Lap and Laparoscopic Tubectomy)Management of all Complications

Some of the initiative has taken by NHM BIHAR to reduce Maternal Mortality Rate.

JananiShishuSurakshaKaryakaram (JSSK)

Government of India has launched JananiShishuSurakshaKaryakaram (JSSK) on 1st June, 2011, which entitles all pregnant women delivering in public health institutions to absolutely free and no expense delivery including Caesarean section. The initiative stipulates free drugs, diagnostics, blood and diet, besides free transport from home to institution, between facilities in case of a referral and drop back home. Similar entitlements have been put in place for all sick newborns accessing public health institutions for treatment till 30 days after birth. In 2013 this has been expanded to Sick infants and antenatal and postnatal complications

Maternal Death Review

The process of maternal death review (MDR) has been implemented & institutionalized by all the States as a policy since 2010. Guidelines and tools for conducting community based MDR and Facility based MDR have been provided to the States. The States are reporting deaths along with its analysis for causes of death.

Web Enabled Mother and Child Tracking System

Name Based Tracking of Pregnant Women and Children has been initiated by Government of India as a policy decision to track every pregnant woman , infant & child upto 3 yrs, by name for provision of timely ANC, Institutional Delivery, and PNC along-with immunization & other related services.

A Joint MCP Card

Ministry of Health & Family Welfare and Ministry of Women and Child Development (MOWCD) has been launched as a tool for documenting and monitoring services for antenatal, intranatal and postnatal care to pregnant women, immunization and growth monitoring of infants.

Technical Guidelines & Service Delivery Posters:

GoI has developed & disseminated standard technical guidelines & service delivery posters for standardizing the quality of service delivery during ANC, INC, PNC, etc from tertiary to primary level of institutions.

Comparative statement on MMR as per SRS and AHS

Comparative analysis of MMR, SRS (2011-13) and AHS(2012-13) Data		
State	**MMR-SRS(2011-13)**	**MMR-AHS(2012-13)**
INDIA TOTAL	167	
Assam	300	301
Bihar	208	274
Jharkhand	208	245
Madhya Pradesh	221	227
Chhattisgarh	221	244
Orissa	221	230
Rajasthan	244	208
Uttar Pradesh	285	258
Uttarakhand	285	165

(J) COLD CHAIN

Cold chain is a technique by which vaccines are kept from the point of manufacturing to the point of use at recommended temperature i.e, +2 to $+8^{O}$ C.

Equipments needed for cold chain

1. Vaccine storage room.
2. Walk-in cooler.
3. Walk-in freezer.
4. Deep freezer.
5. Ice-line refrigerator.
6. Refrigerated vaccine van.

7. Cold box.
8. Vaccine carrier.
9. Ice packs.

Light sensitive vaccines.

Highly sensitive

BCG

POLIO VACCINE

MEASLES

DPT VACCINE

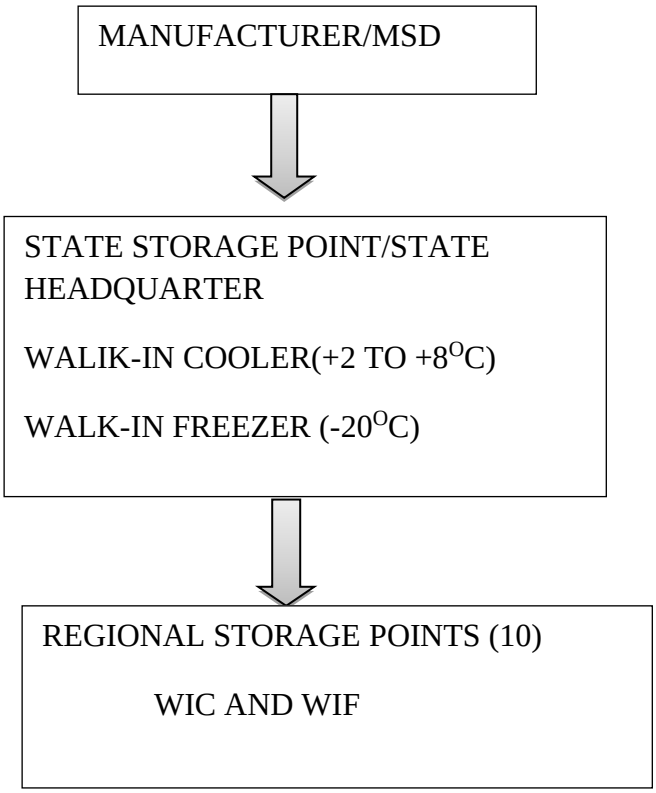
BCG

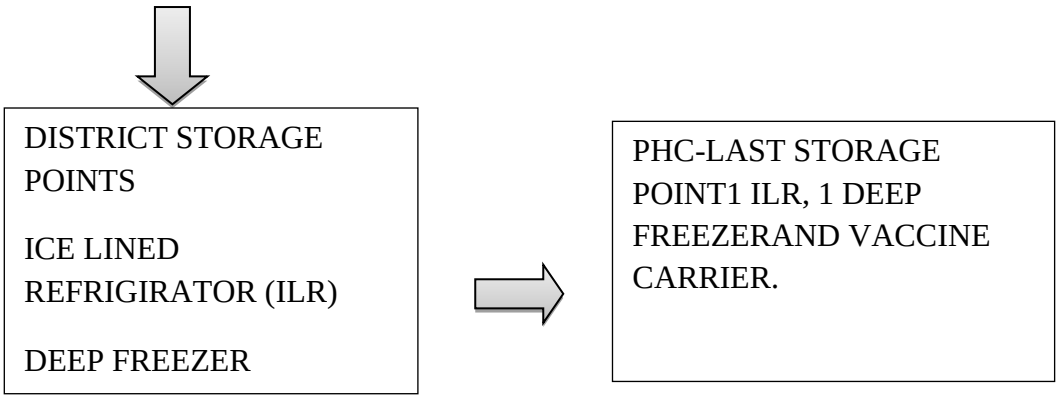
TT

HEPATITIS-B

Low sensitive

Maintenance of cold chain





(K)VHSND DEPARTMENT

MrRanjeet

Focuses on the community health process

Purpose of NRHM

- To change the approach from bottom to top before nrhm the approach was top to bottom.
- ASHA component has been introduced along with the flexibility HR availability infrastructure funds administration planning monitoring convergence pri-implementation.
- About 2-3% of total GDP has been given for the fund for NRHM.

HEALTH

There are four components of health:

- Preventive
- Promotive
- Curative
- Rehabilitative

These all are interlinked with each other.

- Community health

For community health NRHM works for the 3A principle i.e affordability accessibility availability.
ASHA is a community mobilizer.

VHSND(village health sanitation and nutrition day)

VHSND has been introduced to improve the community health of the peoples.

It has been divided into four sectors

Category	Concerned department and the person
Sanitation	PHED
Nutrition	ICDS AWW
Village	PRI COMMUNITY
Health	ANM ASHA

- In VHSND ANC PNC and adolescent health supplementary medicine temporary sterilization method (condoms) etc. has been taken care o

(L)FAMILY PLANNING

MrSajjad Ahmed, SPO, family planning.

- TFR is 3.5 in Bihar.
- Hindi spoken places like UP, Bihar ,Jharkhand, Rajasthan, MP are considered as the red
- Hearted region of India as major contribution in population has been given by these states.
- Only 1 % sterilization of population in Bihar can achieve a level of 2.1 of TFR.
- There are 68.2% child marriages in Bihar.
- 58 % have a child after first year of marriage.
- A new technique PPIUCD has been introduced in the six medical colleges from the last year which has been planted after the delivery to maintain the gap between 2 children for 2-3 years. It has been done by the gynecologist& has been done within 48 hours of delivery.

JHAPAIGO works for the PPIUCD

- On population day a world population fortnight has been organized.
- It has been planned to introduced family planning counselor at FRUs of which 80% counselor will be ladies.
- There is a scheme known as JananiSurakshaKosh (JSK).
- Under these two programs has been done.

(a) Prenaa award: in this if a BPL couple having first child after 2 years of marriage has been rewarded with an amount of Rs 5000.

(b) Santhusthi: under this a family planning campaigning has been done during the winter season.

Delivery of the family planning products by the GOI:

Contraceptive social marketing program is supported by the central government.

Social marketing organization (SMO) is:-

- **PSI**
- **DKT**
- **Janani**

Social marketing organizations purchase the family planning products from the government on subsidy.

Private manufacture like HLL, fany car, TTK etc supplies the product to the GOI on a reasonable price, gol store the products to the GSMD (government medical store depot) & from there GSMD supply the product to the agreement SMO like Janani, PSI, DKT.

Packaging of the product purchased from the gol is done by the SMO.

- Janani having 30 customized vans in which promotion & selling of the family planning product is done. It consist of one driver who does IPE (inter personal communication) and one sales person.
- As Janani also does campaigning to advertise its products and spread awareness among the peoples and for this it has to take permission from the state health society.

Observation:

- Janani having the different section for different activities.
- Records of the different states have been maintained through MIS system.
- Have a clinic for performing the family planning activities.
- Also does counseling during admission of the patient.

Recommendation:

There should be a separate counseling room for the patient as currently it is done near reception during admission. The patients do not feel comfortable to share their problem.

Research Summary

Research Topic

A comparative study on out of pocket expenditure and burden on house hold in cardiac treatment.

Introduction

Out of pocket expenditure in health is a main component of the house hold expenditure of health services users and sources of concern especially for India.
About 80% of public financing of healthcare comes from state government budgets, 12% from the union government and 8% from local government of the total public health budget. About 10% is externally financed in contrast to around 1% prior to structural adjustment loans from the World Bank and other agencies. Private financing is the mostly out of pocket with a large proportion, especially for hospitalisation which is coming from savings account.

Countries having universal or close to universal access to healthcare generally have single payer mechanisms in which either a single autonomous public agency or a few coordinated agencies pool resources to finance healthcare. This accelerates the equity in healthcare as well as contributes towards low levels of poverty in these countries. Countries which have the capacity to buy healthcare from the market most often get healthcare without having to pay for it directly because they are either covered by social insurance or buy private insurance. In contrast, a large majority of the population, who suffers a hand-to-mouth existence, is forced to make direct payments, often with a heavy burden of debt, to access healthcare from the market because public provision is grossly inadequate or non-existent.

Thus, the absence of adequate public health investment not only results in poor health outcomes but it also leads to increase of poverty. Only in countries like India and some other developing countries, health financing still rely mostly on out-of-pocket payments, where universal access to healthcare is intangible. In India, despite improvements in access to health care, inequalities are related to socioeconomic status, geography and gender, and are compounded by high out-of-pocket

Out of Pocket Expenditure [OOPE] in India - Factors

India ranks third in the World Health Organization's latest list of "countries with highest out of pocket (OOP) expenditure on health" in the south-east Asia region. Though, the country has a well-structured 3-tier public health infrastructure, comprising Community Health centres, Primary Health Centres and Sub-Centres spread across rural and semi-urban areas and tertiary medical care providing multi-specialty hospitals and medical colleges located almost exclusively in the urban areas. Still the progress has been quite patchy across the regions (large scale inter-State variations); gender (male-female differences) as well as across space (with significant rural-urban differences).
The Out-of-pocket health expenditure (% of private expenditure on health) in India was last reported at 86.35 in 2010, according to a World Bank report published in 2012. In India,

health-care expenditures aggravate poverty, resulting in about 39 million people falling into poverty every year as a result of such expenditures. Therefore, identification of the key challenges for achieving the equity in health service provision, equity in financing and financial risk protection in India is an immediate. These factors or challenges include an imbalance in resource provision, inadequate physical access to high-quality health services and human resources for health, high out-of-pocket health expenditures, inflation in health spending, and also the behavioural factors that affect the demand for appropriate health care.

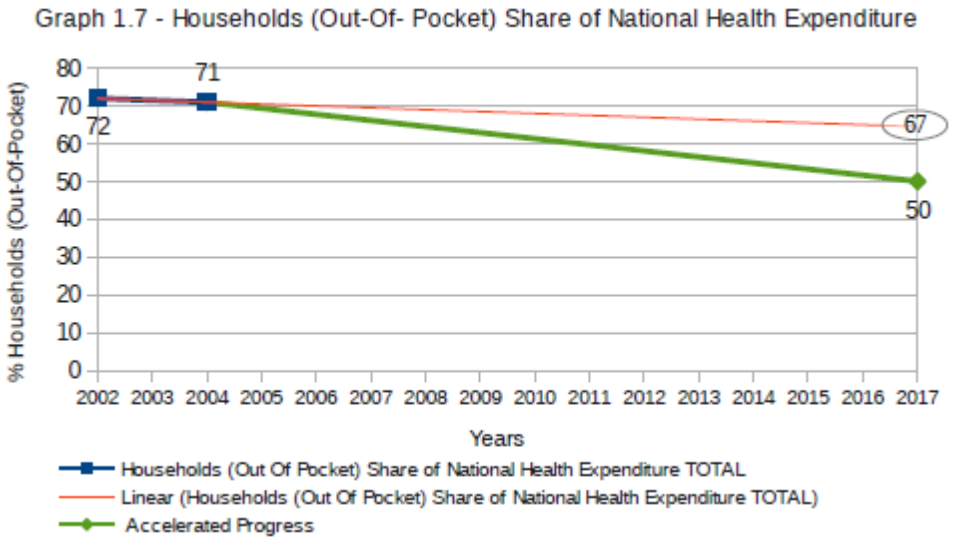
Proper usage of equity metrics in monitoring, assessment, and strategic planning; investment in development of a thorough knowledge base of health-systems research; development of a refined equity-focused process of deliberative decision making in health reform; and redefinition of the specific responsibilities and accountabilities of key actors are needed to try to achieve equity in health care in India. The execution of these principles with strengthened public health and primary-care services will ensure a more equitable health care.

The Planning Commission too accepts that OOP to pay for healthcare costs is a growing problem in India. (Times of India - May 17, 2012). It says 39 million Indians are pushed to poverty because of ill health every year. Around 30% in rural India didn't go for any treatment for financial constraints in 2004. In urban areas, 20% of ailments were untreated for financial problems the same year, said a recent study in the Lancet. About 47% and 31% of hospital admissions in rural and urban India, respectively, were financed by loans and sale of assets.

Many studies (Narayanan et al. 2000; Peters et al. 2002; Pradhan 2002) have indicated that the marginalized in India become utterly vulnerable when they seek medical intervention for major ailments. A recent study on out-of-pocket expenditure and poverty has clearly shown that OOP health expenditures account for an average increase in poverty by as much as 3.6 and 2.9 per cent for rural and urban India respectively. (Gupta 2009).

Analysis of healthcare expenditure from the Union Budget and State Budgets in India clearly shows that the country’s overall magnitude of public expenditure on healthcare is very low. As a result of this, India’s healthcare system is among the most privatized healthcare systems across the world. In India, people have to depend significantly on the private sector for availing different kinds of healthcare services. Consequently, the burden of spending for healthcare falls directly on households and a major part of healthcare expenditure in India is out-of-pocket expenditure by people, which has strong adverse implications for the poor. According to NSSO 60th round data it has been observed that around 6.2 per cent of total households in the country fell below the poverty line as a result of healthcare expenditure in 2004; among which around 1.3% of the households fell below poverty pine as a result of expenditure on inpatient care, while 4.9% of the households fell Below Poverty Line as a result of outpatient care.

Figure 2 Out of Pocket expenditure on house hold from 2002 to 2017



Source: *http://www.tradingeconomics.com/india/out-of-pocket-health-expenditure-percent-of-private-expenditure-on-health-wb-data.html*

The latest available National Health Accounts (NHA) of 2004-05, which has been provisionally estimated the total health expenditure of 2008-09, shows that, out of total healthcare expenditure in our country, only 26.7% was public expenditure and 71.6% was private expenditure with external assistance accounting for a very small share of 1.7%.Out of the total private expenditure on healthcare, out-of-pocket expenditure accounts for a very large chunk as the healthcare expenditure financed by ISSN .

OBJECTIVE OF THE STUDY

- To assess the out of pocket expenditure on house hold in cardiac treatment.
- To analyze the economic transition during the cardiac treatment at various hospitals.

METHODOLOGY

The study was done to analyze the economic burden due to out of pocket expenditure in cardiac treatment.

- **Study type:** Descriptive study
- **Study design:** Cross -sectional study
- **Study area:** Five tertiary hospitals which include three private hospitals, one government hospital and one trust/semi government hospital in various parts of Patna.
- **Study Population:** Patient attendants who availing the cardiac treatment.
- **Inclusion criteria:** Patient for cardiac treatment.

Sampling size: 25 of all age groups who having cardiac treatment.

- **Study tool:** A pre designed, pre tested , semi structured questionnaire with open ended questions.
- **Study period:** 1st April to 20th may 2015

Tool for data collection

We collected data through questionnaire consisting of each set of 14 questions followed by some sub questions from the 5 various specialty cardiac hospitals of different parts of city .The attendants of the cardiac patients of various age groups were the respondent of our data collection

Data collection Technique:

The method adapted was random sampling of five specialist cardiac hospital of Patna District and then a random selection of people in the each hospital done. The sampling unit was cardiac hospitals and its particular department site. In each selected hospitals, patient and there attendant were selected from cardiac department site to reach the required sample size of 25 of all age groups.

Data processing and compilation

All the answers to the interview questions were then entered into a password locked computer for further analysis. An excel sheet was used to enter all the data from which those data needed for analysis and interpretation were separated. All data was verified and double checked before initiating analysis.

Statistical analysis

The data was analyzed statically and graphically. We used Microsoft excel 2010 for the analysis. The study involved analysis of categorical variables. The amount of missing data for each variable was recorded and missing data were excluded from the analysis.

Results

Category of patients who availing cardiac treatment in various hospitals were total numbers of patients 25(n=25)

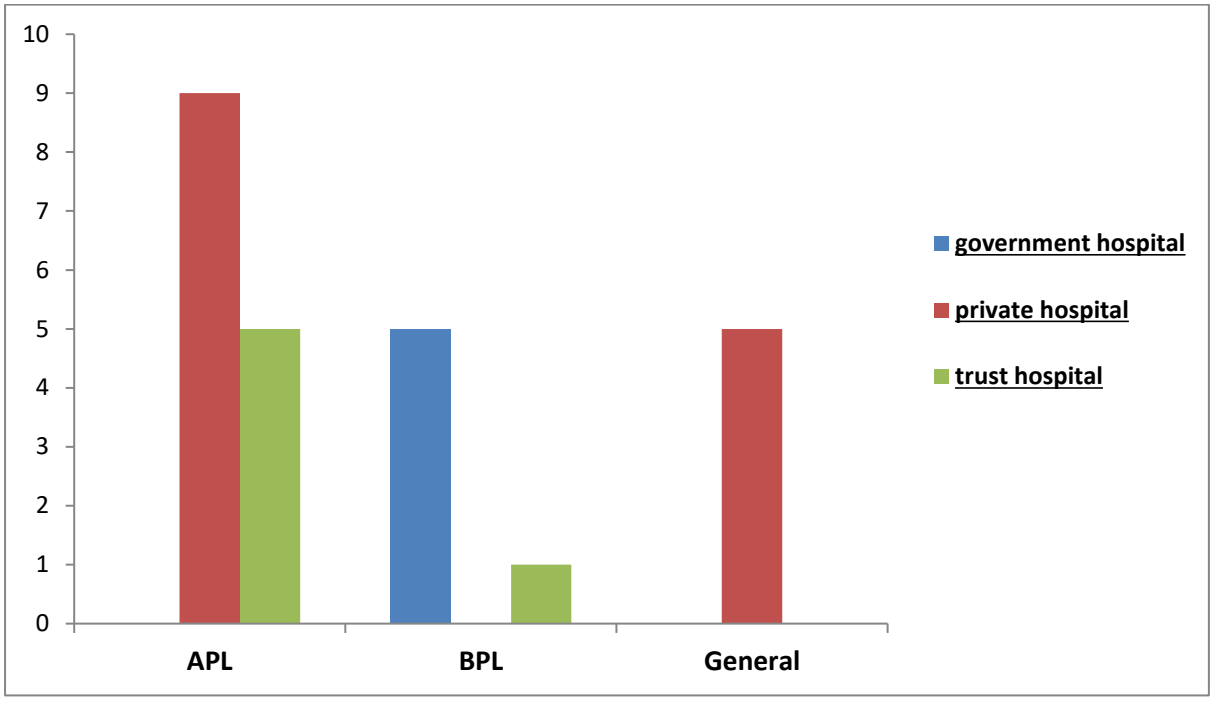
Profile of patient

Table:1

Division of APL, BPL, and GENERAL family category according to their treatment facility in various hospitals.

categories wise per income level

	APL	BPL	General
government hospital	0	5	0
private hospital	9	0	5
trust hospital	5	1	0

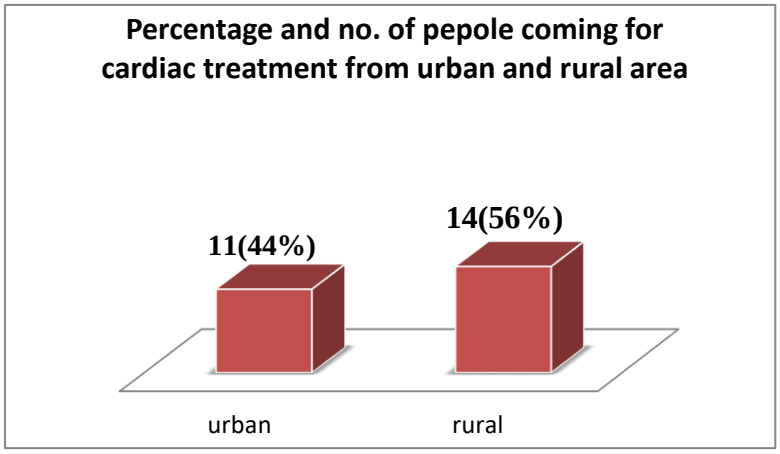


5 percent BPL take treatment in govt. hospital including 1 percent BPL take their treatment in trust hospital out of 25 total patients. 9 percent APL in private hospital and 5 percent APL in trust hospital avail their treatments. Rest of 5 percent general category people come under the private hospital.

TABLE: 2

People belonging to rural & urban area

Urban	11
Rural	14

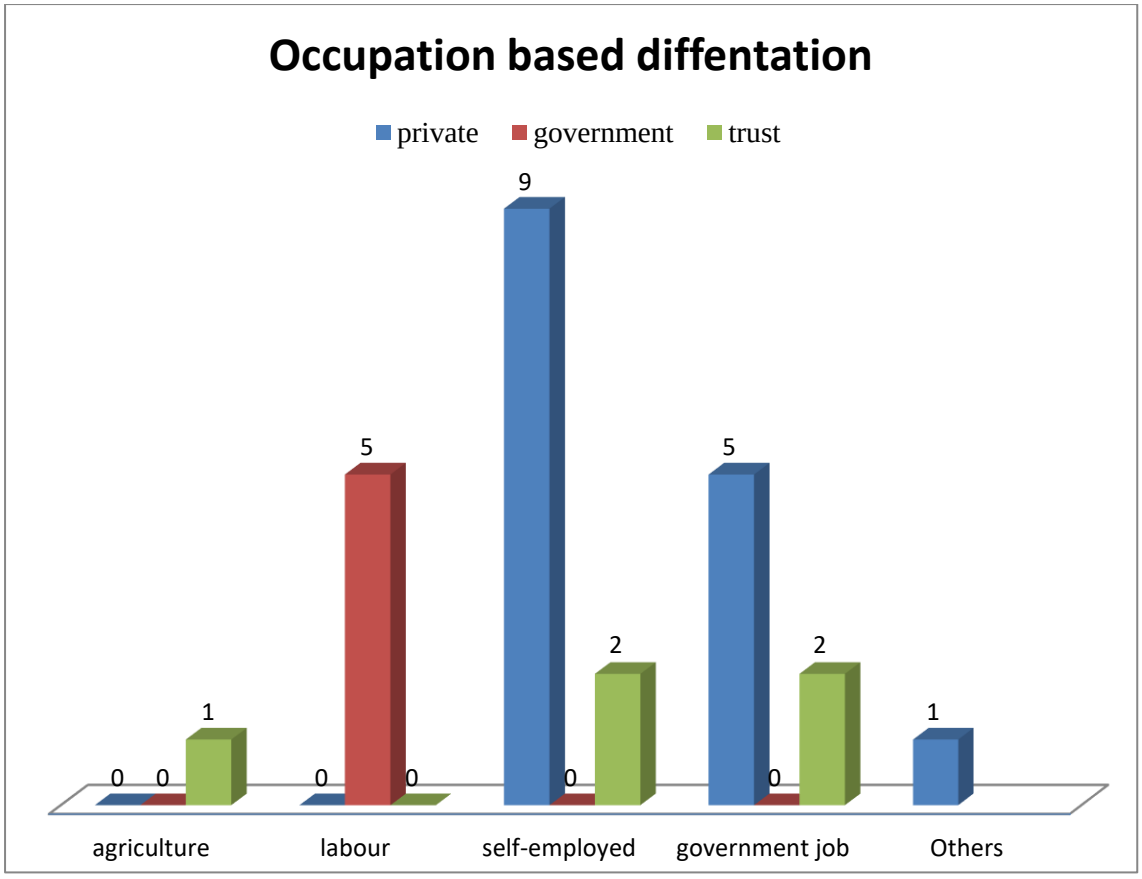


- Out of 100 percent (n=25), 44 percent (n=11) patient are coming from urban area and 56 percent (n=14) are coming from rural areas for cardiac treatment.
-

Table 3

Occupation based diffentiation

	agriculture	labour	self-employed	government job	Others
private	0	0	9	5	1
government	0	5	0	0	0
trust	1	0	2	2	0



- Out of total patients(n=25) coming for cardiac services
- Highest number of patient is self-employed going in private hospital for cardiac treatment.
- Then second highest number of patient are from labor class availing treatment in govt.hospital and government jobs availing facility in private hospital.
- Third highest number of patient from self-employed and also some are from govt. jobs availing services in trust hospital.
- Lastly fourth number 1 % patient from agriculture background and others occupation people who availing their services trust hospital and private hospital.

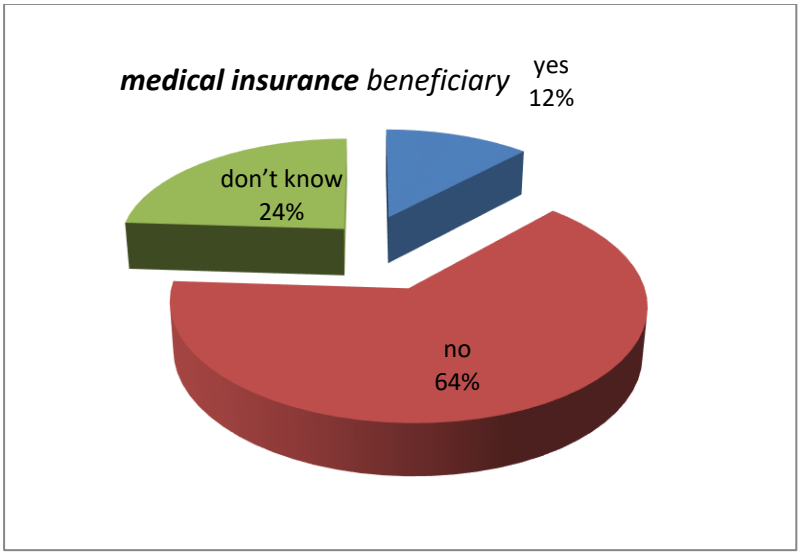
Cost of treatment

Table 4:-

Number of people having medical insurance.

medical insurance beneficiary

Yes	**3**
No	**16**
don't know	**6**



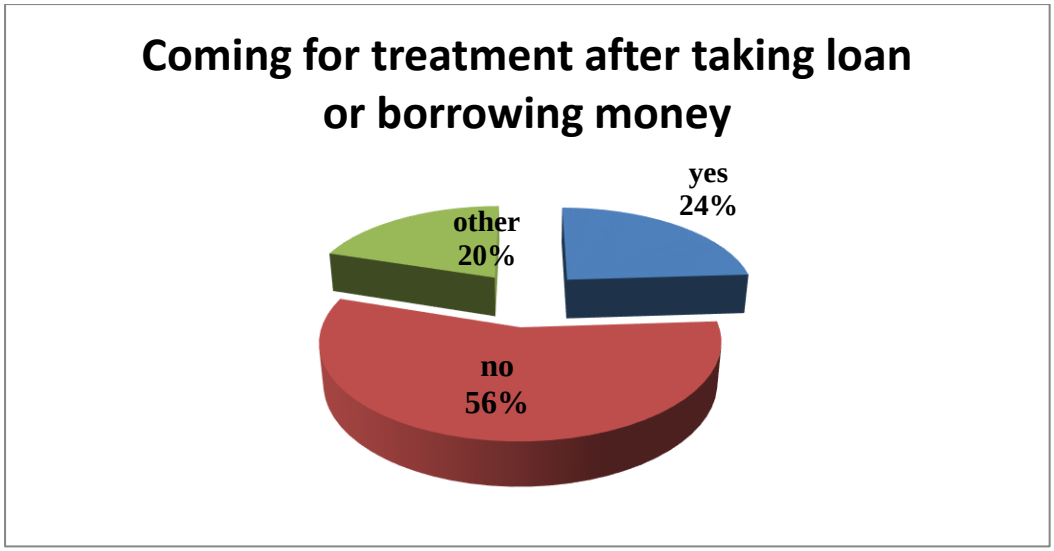
Total n=25

- 24 percent People don't know about about medical insurance
- Only 12 percent are people are aware about medical insurance.
- Rest of 64 percent people has no any medical insurance.

Table5:

Patient came for treatment after taking loan or borrowing money from someone

	No. of patient
Yes	**6**
No	**14**
Other	**5**

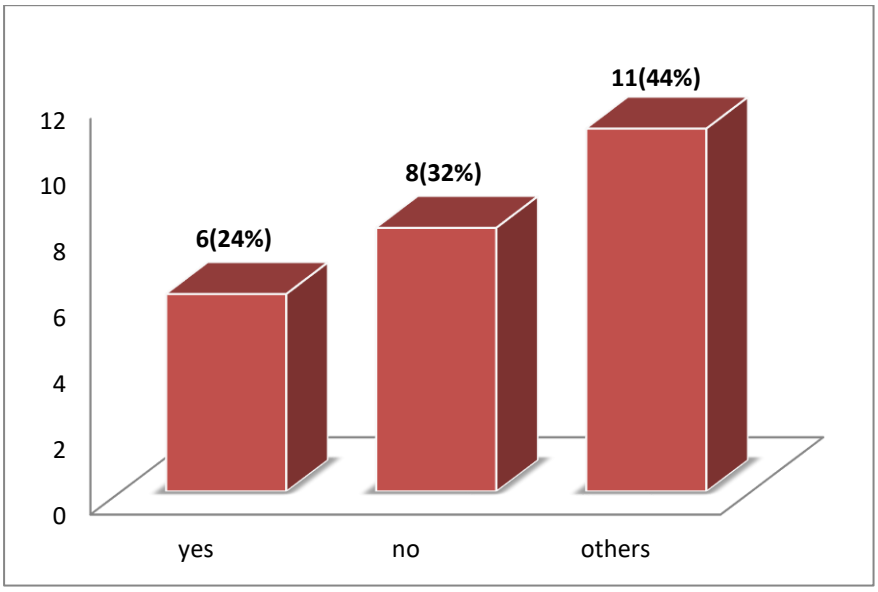


- Out of total sample (n=25), 24% have either taken loan or have borrowed money for the cardiac treatment 56% have their own money and other 20% had broken their FD or some saving from past time.

Table 6:

Sold assets or bond for cardiac treatment

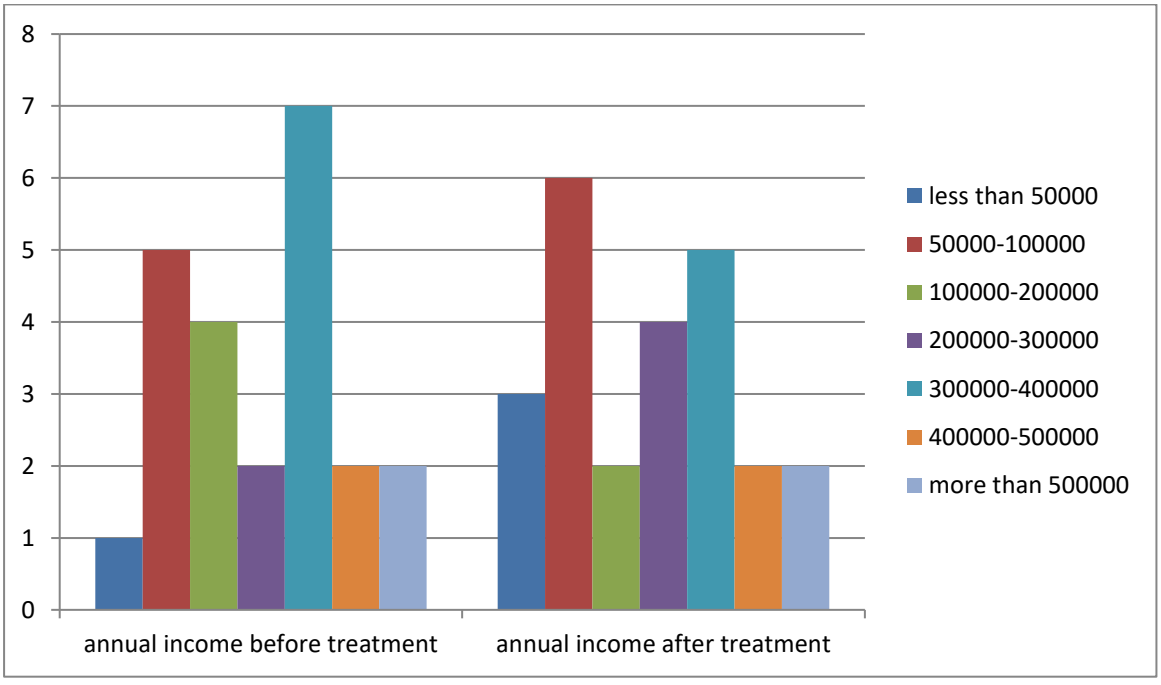
Yes	6
No	8
Others	11



- Out of total sample size 24 percent (n=6) have sold their assets or bold for cardiac treatment 32 percent (n=8%) have their own money and 44 percent (n=11) have got help from their family members, relatives and friends.

TABLE 7:
ECONOMIC TRANSITION BEFORE AND AFTER CARDIAC TREATMENT

	Less than 50000	50000-100000	100000-200000	200000-300000	300000-400000	400000-500000	More than 500000
Annual income before treatment	**1**	**5**	**4**	**2**	**7**	**2**	**2**
Annual income after treatment	**3**	**6**	**2**	**4**	**5**	**2**	**2**



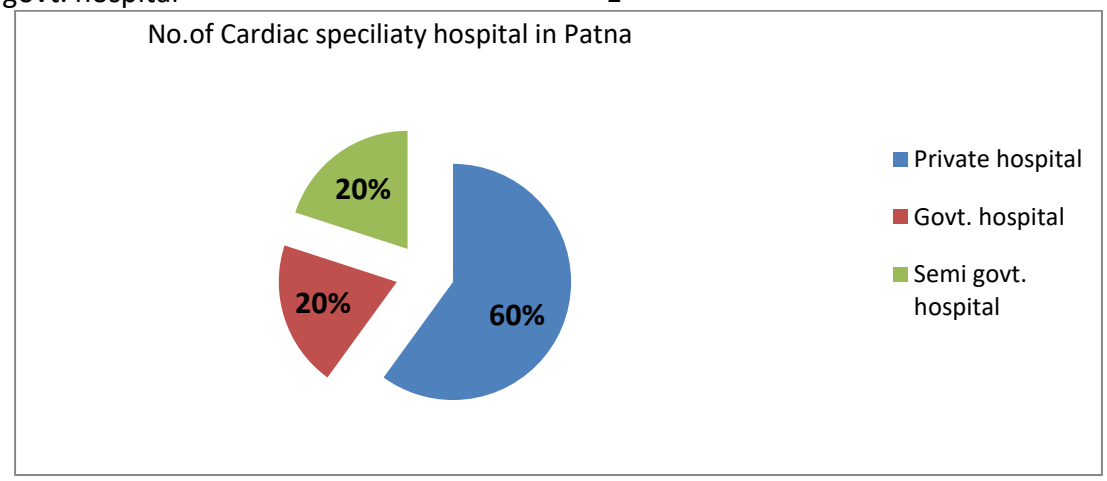
- Out of total sample n=25

- Total number of people comes under annual income less 50000 before treatment is 1 and after treatment number of patient shifted is 3.
- Annual income between 50000 to 100000, number of people before treatment was 5, after treatment which was shifted to 6.
- No of people earning 100000-200000 before treatment were 4 which shifted to 2 after treatment.
- 200000- 300000 was earned by 2 peoples before treatment which later on shifted by 4 after treatment.
- No of people having income of 300000-400000 were 7 which was shifted to 5 after treatment.
- 400000-500000 income was of 4 peoples which shifted to 3 after treatment.
- More than 500000 annual income of family remained the same.

Table 8:

Number of cardiac specialty hospital in Patna.

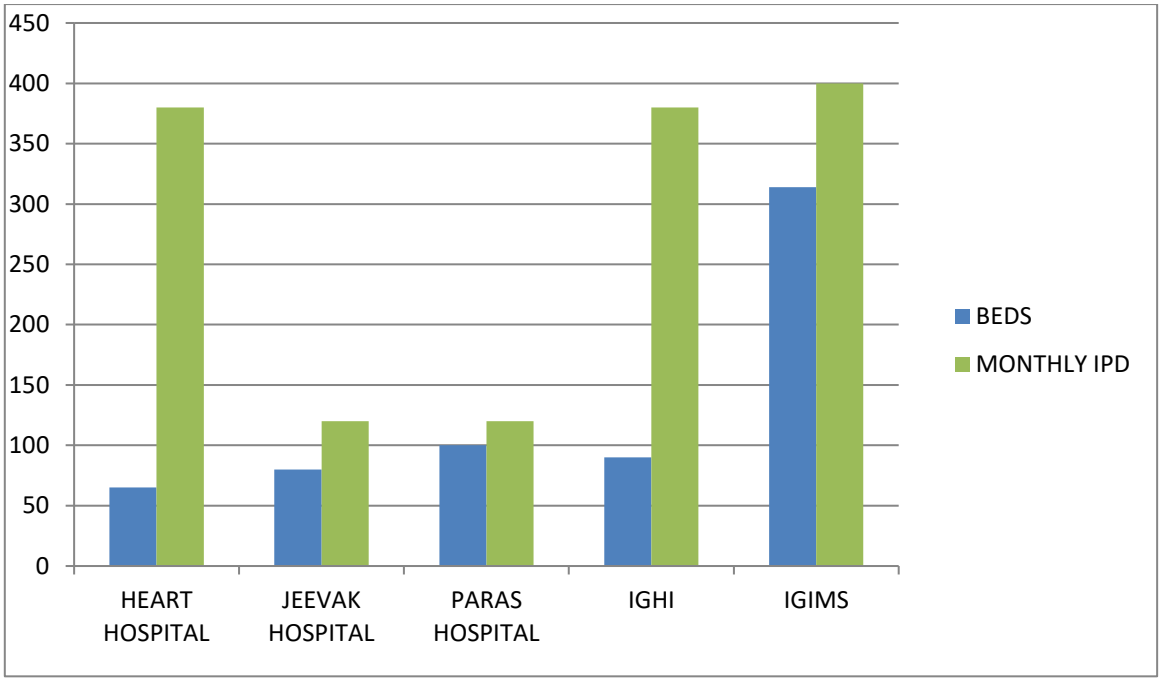
Private hospital	3
Govt. hospital	1
Semi govt. hospital	1

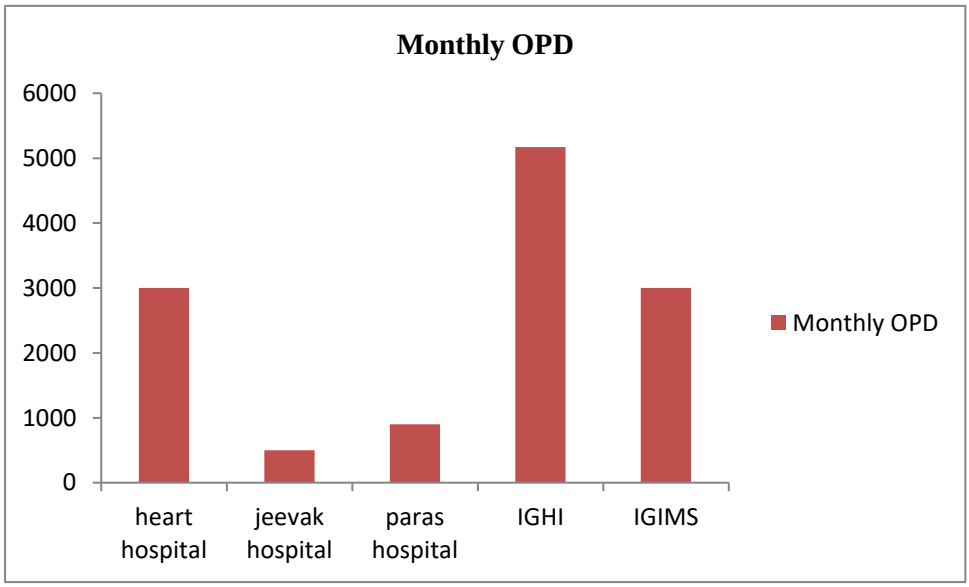


Patient load over various cardiac hospitals

Table 9:-

Number of beds in hospitals and monthly OPD





- There are 3 private cardiac specialty hospitals in Patna
- Heart hospital is having 65 beds were total monthly OPD is 3000 and monthly IPD is 380.
- Jeevak hospital is having the capacity of 80 beds, OPD is 500 and IPD is 120.
- Paras hospital is having 100 beds with monthly cardiac OPD 900 and IPD is 120.
- IGIMS hospital having 314 beds with monthly OPD 3000 with monthly IPD 400.
- IGHI hospital having 90 beds with monthly OPD5169 and IPD 360.

People coming from various parts of Bihar and even from nebhiouring states

LIMITATIONS OF STUDY:-

- Due to insufficient time available (approx 30 DAYS) & lack of proper manpower, resources this study was carried out in fat way. All the results in detail to be found are not there although data are available more results are yet to be found.
- In this study main focus is was on expenditure of cardiac treatment.

Conclusion:-

This study was basically done on comparative study of OOP expenditure and burden on house hold in cardiac treatment. In which patient of all age group who having cardiac treatment in various hospitals and also study was done on occupation status of family who availing the cardiac treatment.

It was found that there is huge population of cardiac patients in Bihar and lots of patient are coming to Patna which is capital city of Bihar .The main attraction of patient coming to Patna was because of cardiac hospitals available there. The majority of patients are from BPL family who only can afford services in government hospital but the problem is that there is only one hospital in Patna which provide free cardiac treatment by which there is large

number of patient load occurs in hospital by which it is very hard to maintain treatment to all people with quality treatment.

The private hospital numbers are average but again problem lies in cost factor because people who are in APL category .People invest huge amount of money on cardiac treatment but this treatment carries for long duration by which people have continue to pay for longer time. So this makes people financial crunch and economic burden in OOP expenditure on house hold. Due to OOP expenditure people transits and get shifted from APL category to near about BPL category .

There is huge lack of insurance awareness among the people in Patna .9(India lies on 3rd position in OOP expenditure in the world).About 90% people have no any medical insurance and rest of that people don't know about medical insurance , reasons are many more but main reason is also poverty level in Bihar.

Findings:-

- Huge population of cardiac patients in government hospitals.
- Average cost of cardiac treatment in all five hospitals is 70,000.
- Average cost of treatment in government hospital (indirect cost) is 18000.
- Lack of medical insurance system or awareness about insurance is very low.
- Lack of institutional set up in cardiac services is prevailing in Bihar.
- Huge population of cardiac patients in government hospitals.
- Work load is very high due to which the patient not able to get treatment on time and many times they have to wait for many days.
- There is high OOP expenditure on house hold services.
- Lack of medical insurance system or awareness about insurance is very low.
- The patients have to travel long journey for the treatment by which they have to bear more indirect cost in the cost of treatment.
- Even in government hospital, BPL patient have to incurred lots of indirect cost in the treatment, due to which again they are pushed back into the depts. and financial crisis.

Suggestions:-

This study is somehow relevant because of low sample size but this is small micro plan .If this should be done at larger level then it will high light the shortage of cardiac specialty hospital by which government should try to increase in the numbers of the government hospital. Government should try to implement medical insurance policy with collaboration with PPP model and tie up with private hospitals. Even government should make all district hospitals fully functional their cardiac department in terms of medical equipment's availability through PPP .The government should first insure the primary cardiac health checkup at their district hospital for screening of cardiac problem; this will minimize the patient load in hospitals.

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Annexure:

CONFIDENTIAL

(For research purpose only)

Questionnaire Schedule for cardiac patient respondent

A study on OOP expenditure and burden on house hold in cardiac treatment.

Questionnaire identification no.: _____
State name: _____ **District name:** _____

Hospital _____**Patient name &Age** _____

Name of the respondent: _____

Patient relation _____

Name of treatment
_____

And duration of patient stays _____

Date _____

Informed Consent

Namaste! My name is Vikashkumar and I am from State Health Society ,Shekhpura Patna ,conducting a survey to study OOP expenditure and burden on house hold in cardiac treatment. We would greatly appreciate the participation of your household in this survey.

I would like to ask you some questions about cardiac treatment which includes yours money spend ,your occupation , years of treatment taking . The survey usually takes 20-30 minutes to complete. Information you provide will be kept strictly confidential and used only for research.

Participation in survey is voluntary, if you choose to participate, you may withdraw at anytime. However we hope that you will take part in survey since your participation is important.

May I begin the interview now?

- Respondent agrees to be interviewed……..1.Q.no1.
- Respondent does not agree to be interviewed……2.End.

Interviewer's Name: …… time…….

Signature. ……

	Question	Response	Code	Skip To/Remarks
1 1.1	Name of head of family No.of family member			
2	Family Type			
A	Joint		1	
B	Nuclear		2	
2	From where you belongs			
A	Rural		1	
B	Urban		2	

3	What is your caste			
A	ST		1	
B	SC		2	
C	GENERAL		3	
D	OBC		4	
	Other's specify		99	
4	Family Category			
A	APL		1	
B	BPL		2	
C	GENERAL		3	
5	What is the main occupation of family			
A	Agriculture		1	
B	Manual labor		2	
C	Self employed		3	
D	Unemployed		4	
E	Govt. job		5	
F	Other(specify)		99	
6	Do you have medical insurance?			
A	Yes		1	

B	No		2	
C	Don't know		95	
7	Have you taken loans and borrowing for cardiac treatment			
A	Yes		1	
B	No		2	
C	Other's(specify)		99	
8	Have you sold any assets/bond for treatment			
A	YES		1	
B	NO		2	
C	Other's(specify)		99	
9	Since how many years you availing cardiac treatment			
A	1 year		1	
B	2 year		2	
C	3year		3	
D	4 year		4	
E	5 year and more		5	
F	10 year and more		6	
G	Other's (specify)		99	
Cost and expenditure in cardiac treatment(direct and indirect cost)				
10	How much money you have spent till now			
11	How many visits you done after surgery In a year			

A	1 time		1	
B	2 times		2	
C	3 times		3	
D	Other(specify)		99	
12	Travelling expenses for cardiac treatment			
A	1000		1	
B	2000		2	
C	3000		3	
D	More than 3000		99	
13	Daily expenses in fooding and loading			
A	1000		1	
B	2000		2	
C	3000		3	
D	4000		4	
E	More than 4000		5	
F	Others(specify)		99	
14	Daily wages loss			
A	100		1	
B	200		2	

C	300		3	
D	400		4	
E	Other's(specify)		99	

Assessing the knowledge, practice, attitude of beneficiary about routine immunization from various VHND sites of Phulwarisarif block in

Patna District

Research question

To assess the knowledge, attitude and practice of beneficiary of routine immunization.

Introduction

Immunization is a highly cost effective way of improving child survival in developing countries. In India, immunization services are offered free in public health facilities, but the immunization rate remains low. Immunization has been a focus of health care for several decades. Despite evidence of overall success in achieving high immunization rates in most parts of the developing world, the recent resurgence in examining inequities within countries or states in health services has pointed to gaps in access to immunization due to poverty, gender or other socio-economic characteristics.

Vaccines provide active immunity to the body by stimulating the immune system which produces antibodies against disease-producing organisms. Vaccines can be divided into two types, live attenuated and killed formulations. The live attenuated vaccines are derived from disease-causing viruses or bacteria that have been weakened under laboratory conditions. They replicate in a vaccinated individual, but because they are weak, they cause either no disease or only a mild form of the disease. Examples are BCG, Measles and the Oral Polio Vaccine. Inactivated or killed vaccines, on the other hand, are produced by viruses or bacteria and then inactivated with heat or chemicals. They cannot grow in a vaccinated individual and so cannot cause the disease. They are less effective than live vaccines, requiring multiple doses for full protection as well as booster doses to maintain immunity. Examples are whole-cell (pertussis); fractional protein based (diphtheria toxoid and tetanus toxoid) and recombinant (hepatitis B) vaccines. These vaccines vary in efficacy, according to the age at which the vaccine is administered and the number of doses given. For example, the measles vaccine is 85% effective at the age of 9 months and three doses of DPT provide over 95% protection against diphtheria, 80% against pertussis and 100% against tetanus.

In May 1974, the WHO officially launched a global immunization progaramme, known as expanded programme on immunization(EPI) less than five per cent of the world's children were immunized during their first year of life against six killer diseases — polio, diphtheria, tuberculosis, pertussis (whooping cough), measles and tetanus. Today, 83 percent of the world's children under one year of age have received these life-saving vaccinations. Increasing numbers of countries, including low-income countries, are adding new and under-used vaccines, like Hepatitis B, Haemophilusinfluenzae type b (Hib) and yellow fever vaccine to their routine infant immunization schedules.However, one-fifth of the world’s children – about 22.4 million infants – are not immunized against these killer diseases. More than 70 percent of these children live in ten countries. An estimated 1.5 million children died in 2011 from vaccine-preventable diseases. The deadlines for eliminating maternal and neonatal tetanus and certification of global polio eradication by 2010 have not been met.

Our country’s National Population Policy 2000 emphasizes on “achievement of universal immunization of children against all vaccines preventable diseases” and has recognized it as one of the National Socio-Demographic Goals for 2010 along with “prevention and control of communicable disease.” This is also re-emphasized in the mission document of the National Rural Health Mission (NRHM).

Efforts made by Government of India in striving towards its goals are further strengthened by various international and national agencies joining hands in this initiative. UNICEF an international organization is supporting Government of India's efforts and is primarily focusing on child care and immunization in this respect.

Various socio-cultural factors often make it difficult for vaccinators to access children. Some children are excluded from immunization because they come from minority groups or live in deeply impoverished remote areas, where health services may operate poorly. Some communities have religious or traditional beliefs that make them suspicious of immunization.
Bihar is dominantly an agricultural Sate and comprises of 38 districts. Immunization programme is on the priority list of the Govt. of Bihar, as a result of which there has been a sustained improvement in the evaluated coverage report.

- Immunization sessions are held on every Wednesday and Friday along with outreach session on every 5th Friday and fixed day fixed sites (PHCs/ CHCs/ Hospitals) sessions are also been conducted to cover all eligible children.
- Immunization programme is already being running in Bihar named as "Muskan"

The study aims to estimate the knowledge of the beneficiary about routine immunization of BCG, 3 doses of OPV, DPT&Hep B, and measles among children in age group 0-1 year in Fulwarisharif block of Patna distt. of Bihar. Also establish drop- out rate and reasons for drop-out.

Routine Immunization Programme

Routine Immunization is one of the most cost effective public health interventions and was first introduced in India in 1978. Yet, despite the concerted efforts of the government and other health agencies, a large proportion of vulnerable infants and children in India remain unimmunized.
India has the highest number (approximately 10 million) of such children in the world.

The National Family Health Survey(2005-06) reports that only 43.5% of children in India received all of their primary vaccines by 12 months of age. There is a wide variation among states, and states with poorer immunization coverage have higher child mortality rates.
Immunization Programme is one of the key interventions for protection of children from life threatening conditions, which are preventable. It is one of the largest immunization programme in the world and a major public health intervention in the country.

Immunization Programme in India was introduced in 1978 as Expanded Programme of Immunization (EPI)

The programme gained momentum in 1985 and was expanded as Universal Immunization Programme (UIP) to be implemented in phased manner to cover all districts in the country by 1989-90.

UIP become a part of Child Survival and Safe Motherhood Programme in 1992 Since, 1997, immunization activities have been an important component of National Reproductive and Child Health Programme and is currently one of the key areas under National Rural Health Mission (NHM) since 2005

Under the Universal Immunization Programme, Government of India is providing vaccination to prevent seven vaccine preventable diseases i.e.

- Diphtheria, Pertussis, Tetanus, Polio, Measles, severe form of Childhood Tuberculosis and Hepatitis B

The vaccination schedule under the UIP is:

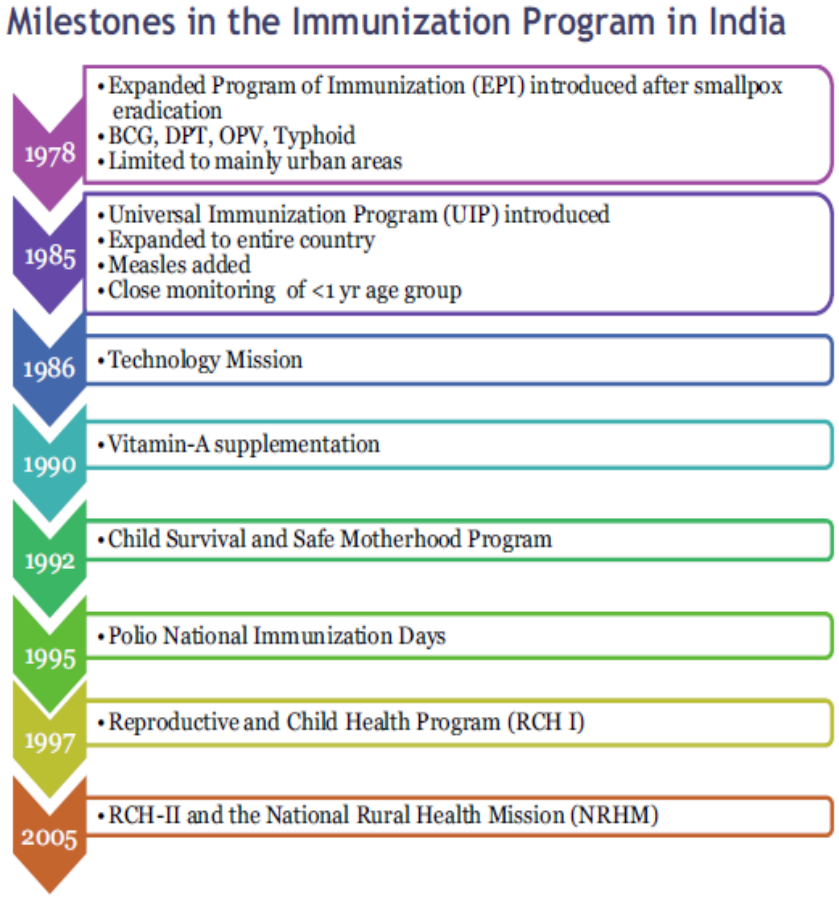
- BCG (Bacillus Calmette Guerin) 1 dose at Birth (upto 1 year if not given earlier)
- DPT (Diphtheria, Pertussis and Tetanus Toxoid) 5 doses; Three primary doses at 6,10,14 weeks and two booster doses at 16-24 months & 5 Years of age
- OPV (Oral Polio Vaccine) 5 doses; 0 dose at birth, three primary doses at 6,10 and 14 weeks and one booster dose at 16-24 months of age
- Hepatitis B vaccine 4 doses; 0 dose within 24 hours of birth and three doses at 6, 10 and 14 weeks of age.
- Measles 2 doses; first dose at 9-12 months and second dose at 16-24months of age
- TT (Tetanus Toxoid) 2 doses at 10 years and 16 years of age
- TT – for pregnant woman two doses or one dose if previously vaccinated within 3 Year

In addition, Japanese Encephalitis (JE vaccine) vaccine was introduced in 112 endemic districts in campaign mode in phased manner from 2006-10 and has now been incorporated under the Routine Immunization Programme

~26 million new born are targeted for vaccination each year through ~9 million immunization session held annually

There are ~25,000 cold chain points in the country to store vaccine under required temperature.

Routine Immunization is one of the most cost effective public health interventions and was first introduced in India in 1978.



Pentavalent vaccine in Bihar

Immunization schedule

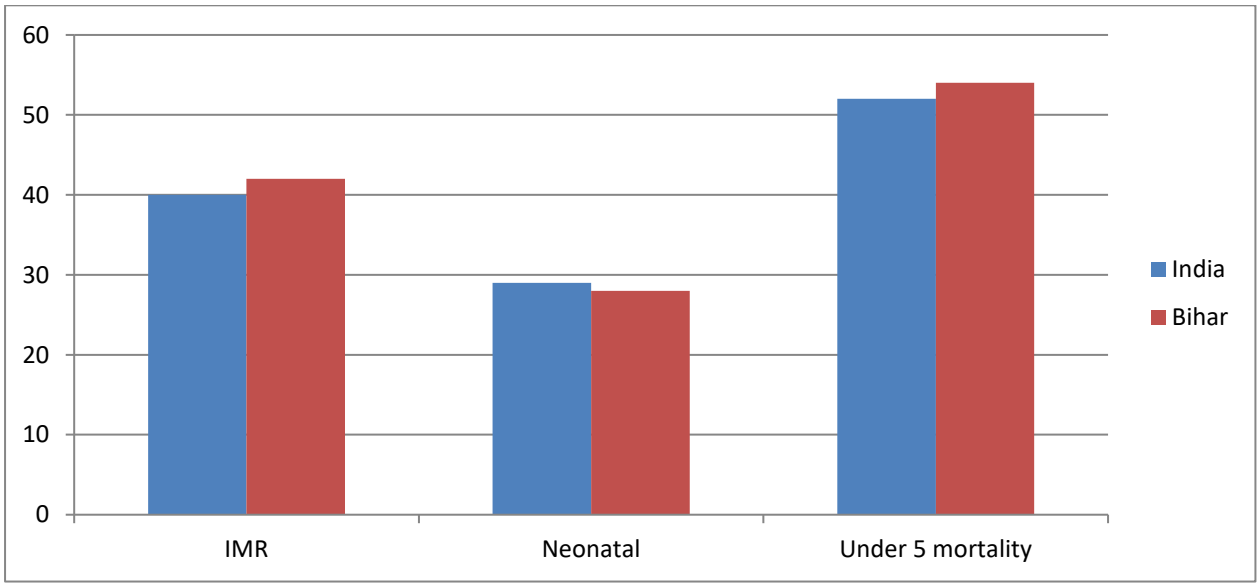
Age	Before Introduction of Pentavalent Vaccine	After introduction of Pentavalent Vaccine
At birth	BCG, OPV-0, Hep B- Birth Dose	BCG, OPV-0, Hep B- Birth Dose
6 weeks	OPV-1, DPT-1, Hep B 1st Dose	OPV-1, Pentavalent-1
10 weeks	OPV -2, DPT-2, Hep B 2nd Dose	OPV 2, Pentavalent-2
14weeks	OPV -3, DPT-3, Hep B 3rd Dose	OPV 3, Pentavalent-3
16-24 months	DPT-Booster, OPV-Booster	DPT Booster, OPV-Booster
5 year	DPT Bosster2	DPT Booster2
10 year	TT	TT
16 year	TT	TT

Situational analysis of Bihar

Table 1.Comparison of IMR, Neonatal and under 5 mortality of Bihar with India (source SRS 2014)

	India	Bihar
IMR	40	42
Neonatal	29	28
Under 5 mortality	52	54

Graph 1: Comparison of IMR, Neonatal and under 5 mortality of Bihar with India (source SRS 2014)



Operational Definitions:

- **Immunization coverage:**Proportion of individuals in the target population who are vaccinated.

- **Fully immunized child:** (Full immunization (i.e. received one dose of BCG, three doses of DPT, and OPV each and one dose of Measles before one year of age) gives a child the best chance for a healthy life.) Usually, this is a child who has received doses of the"standard six" antigens – BCG, diphtheria–tetanus–pertussis (DTP) (3 doses), polio (3 doses), and measles vaccines. In countries at risk for yellow fever, this should be included. New vaccines (Hepatitis B and Haemophilusinfluenzae type b [Hib] are not usually included in this definition; in some countries, BCG is excluded from this definition.

- **Partially Immunized child**: A child who has received one or more vaccination but not all the vaccination according to UIP schedule

- **Non-Immunized child:** A child of age group 0-1 year who has not received any vaccination till date.

- **Drop-out:** Children who received one or more vaccination but do not return for subsequent immunization.

- **AEFI:**An Adverse Event Following Immunization (AEFI) is a medical incident that takes place after an immunization, causes concern, and is believed to be caused by immunization. An AEFI may occur because of program error or sensitivity to vaccine or it may occur coincidentally. Whatever the cause, AEFIs must be taken seriously and the management must be rapid and professional.

Data collection Technique:

The method adapted was random sampling of VHND based on convenience and then a random selection of people in the selected VHND. The sampling unit was VHND site. In each VHND selected, children and their parent were selected from Anganwadi site to reach the required sample size of 50 children of age group 0-1 year.

OBJECTIVE OF THE STUDY

General objective

- To study the knowledge attitude and practice of beneficiary about routine immunization.

Specific objective.

- Reasons for lack in rate of immunization at VHND site visited.

Data processing and compilation

All the answers to the interview questions were then entered into a password locked computer for further analysis. An excel sheet was used to enter all the data from which those data needed for analysis and interpretation were separated. All data was verified and double checked before initiating analysis.

METHODOLOGY

The study was done to analyse the knowledge, practice and attitude of beneficiary about RI.

- **Study type:** Descriptive study
- **Study design:** Cross -sectional study
- **Study area:** VHND sites of block Phulwarisarif Patna
- **Study Population:** 5 VHND sites of 1 block Phulwarisarif of Patna whose parent were there at the VHND site with them.
- **Inclusion criteria:** Child of 0-1 year
- **Study frame:** Parents of child of 0-1 year of age group
- **Sampling size:** 50 children of age group 0-1 year
- **Study tool:** A pre designed, pre tested , semi structured questionnaire
- **Study period:** 1st April to 20th may 2015

Tool for data collection

We collected data through questionnaire consisting of 10 questions followed by some sub questions from the 5 VHND sites 10 from each site.

The parents of the children of that age group i.e, 0-1 year were the respondent group of our data collection.

Statistical analysis

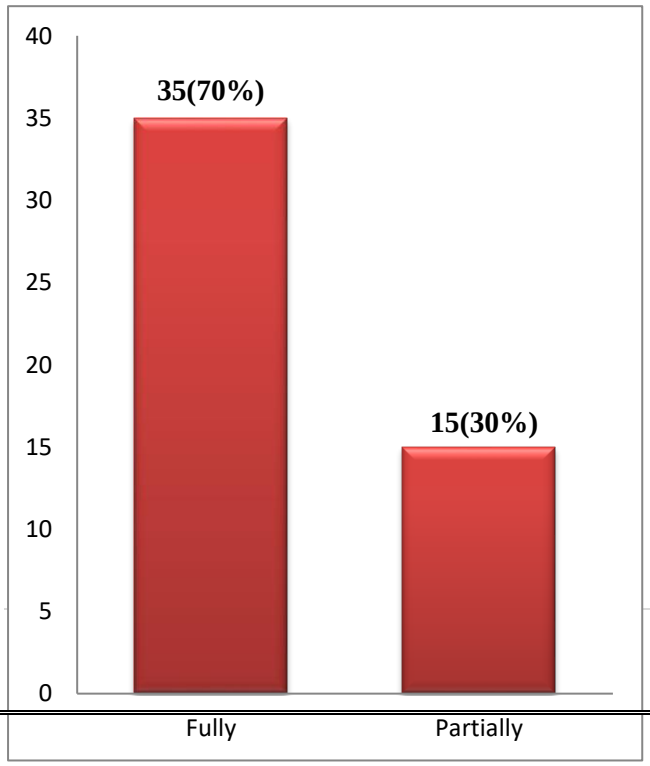
The data was analyzed statically and graphically. We used Microsoft excel 2010 for the analysis. The study involved analysis of categorical variables. The amount of missing data for each variable was recorded and missing data were excluded from the analysis.

RESULTS

Table 2: Status of immunization of a block of Patna

Fully	35	70%
Partially	15	30%

Graph 1: Status of immunization of a block of Patna



- Out of 50 sample of children we found that 70 percenti.e, 35 children are fully immunized and the rest 30 percenti.e, 15 children are partially immunized.
- One thing we came across was that there was no child who was not immunized.
-

Table 3a: Gender wise immunization done in a block of Patna.

n=50

	Child immunized
Male	30(60%)
Female	20(40%)

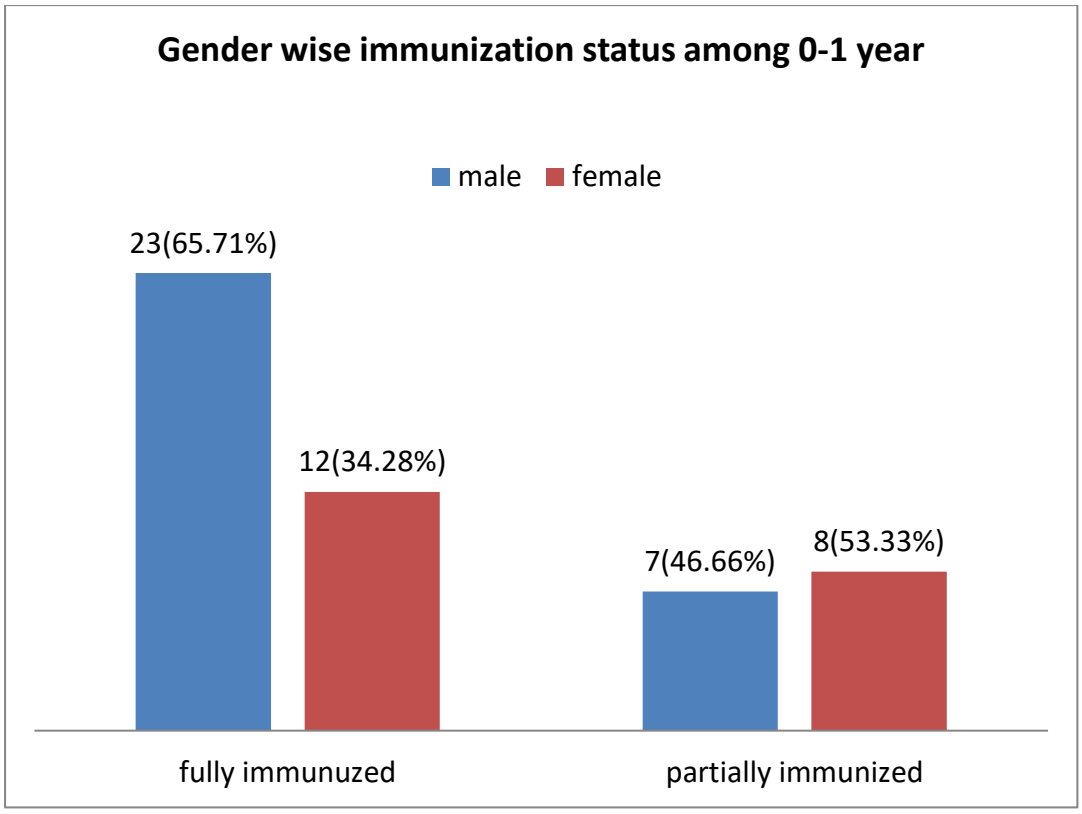
- The difference in the immunization of a girl child and a boy child.

- The 40 percent i.e, 20 female child and 60 percenti.e, 30 male are immunized out of total 50 children taken in the sample.

Table 3b: Gender wise status of immunization

	Fully immunized	Partially immunized
Male	23	7
Female	12	8

Graph 2: Gender wise status of immunization



- The graph is showing that 65.71 percenti.e., 23 male child is fully immunized whereas in the case of female child it is only 34.28 percenti.e., 12 in number out of the sample of 50 children.

- The graph is also depicting that 46.66 percenti.e., 7 male children and 53.33% i.e., 8 female child are partially immunized.

Table 4: Parents knowing about immunization

N=50

Knowing	48
Not Knowing	2

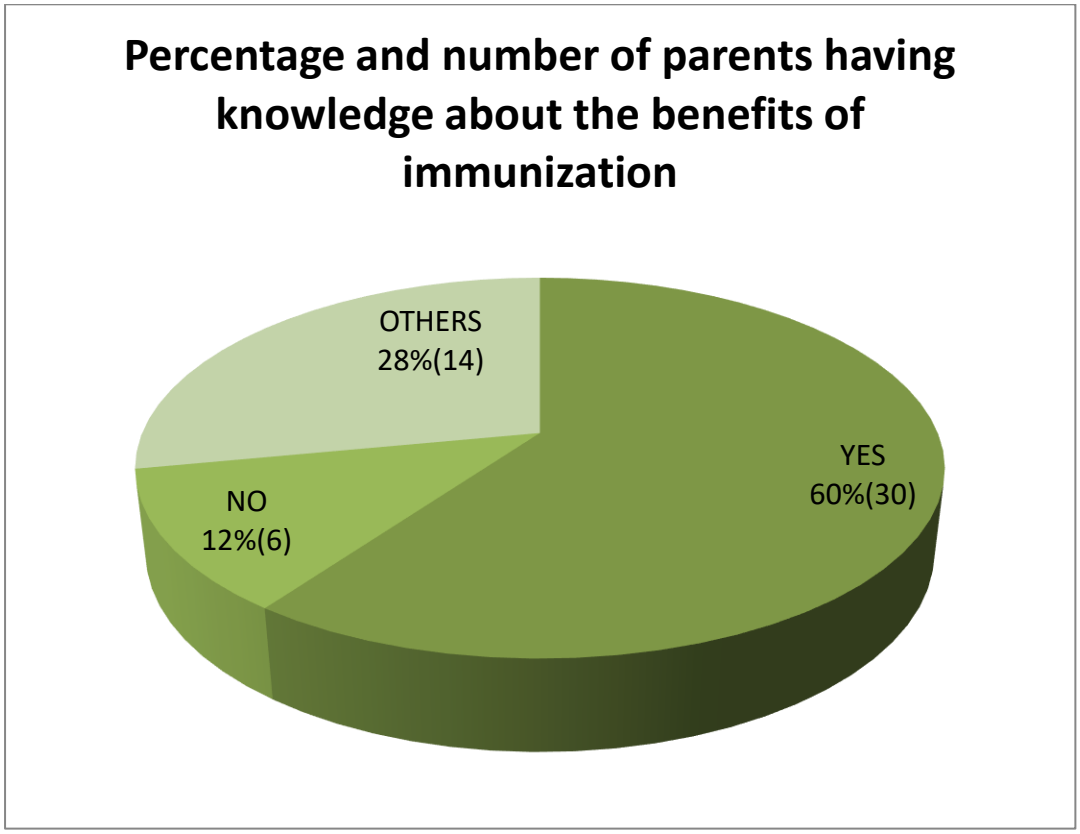
- Out of 50 parents 96% (n=48) are knowing
- Out of 50 parents 4% (n=2) are not knowing.

Table 5: Knowledge of parents about the benefits immunization.

n=50

Yes	30
No	6
Others	14

Graph 3: Knowledge of parents about the benefits immunization.



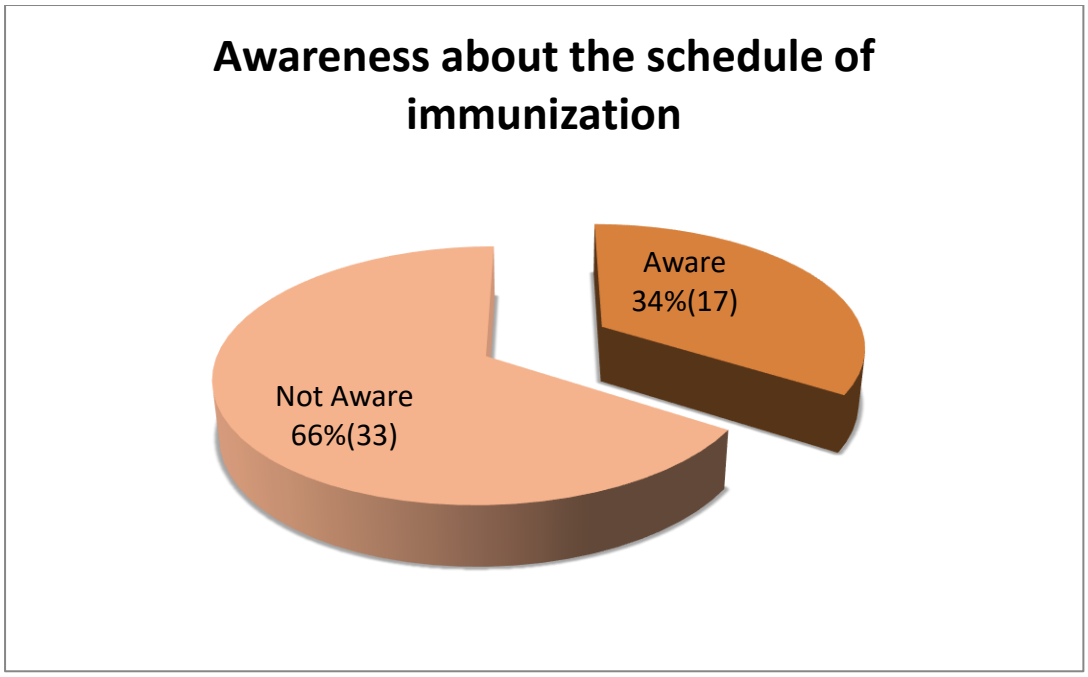
- The graph is representing that 60 percenti.e., 30 parents are aware about the benefits of immunization, 12 percenti.e., 6 are not aware about it and the rest 28 percenti.e., 14 are having one some knowledge about immunization.

Table 6: Awareness about the schedule of immunization

n=5

Aware	17
Not aware	33

Graph 4: Awareness about the schedule of immunization



- Out of 50 children 34 percent (n=17) parents were aware about immunization.
- Out of 50 children 66 percent (n=33) parents were not aware about immunization.

Table 7: Qualification of mother of the child bought for immunization.

n=50

Graduate	9
10+2	22
10^{th}	5
$<10^{th}$	14

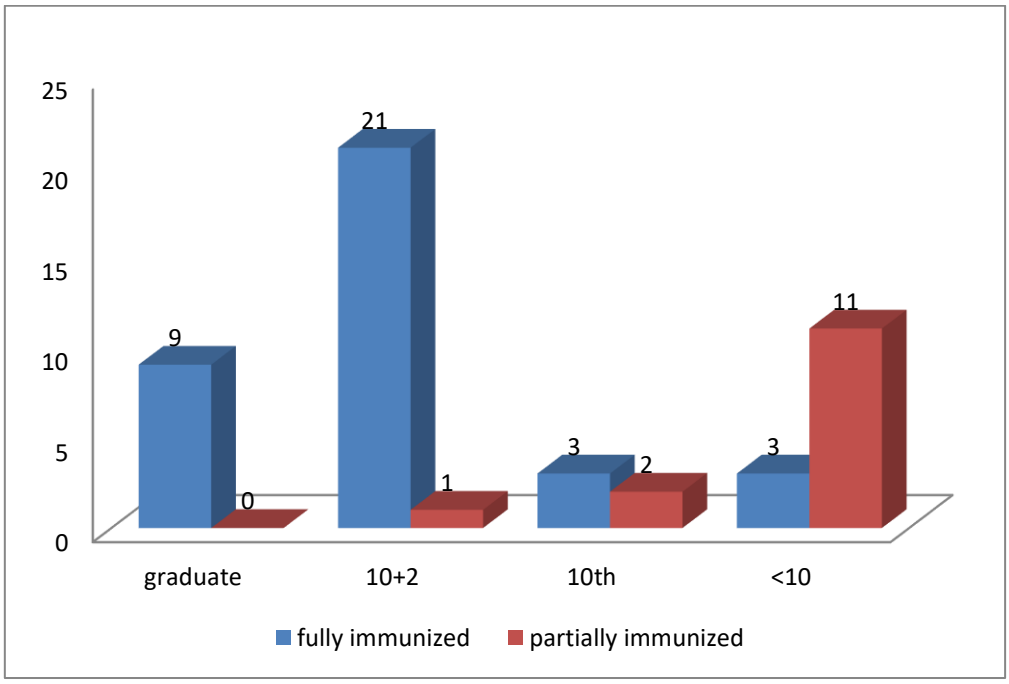
Graph 5: Qualification of mother of the child bought for immunization.

- Out of 50 mothers 9 are graduate.
- Out of 50 mothers 22 have done 10+2.
- Out of 50 mothers 5 have done matriculation i.e, 10^{th}
- And rest 14 are having qualification under 10th .
-

Table 8: Impact of qualification of mother on immunization.

Qualification	Fully Immunized	Partially Immunized
Graduate	9	0
10+2	21	1
10^{th}	3	2
<10th	3	11

Graph5:Impact of qualification of mother on immunization.

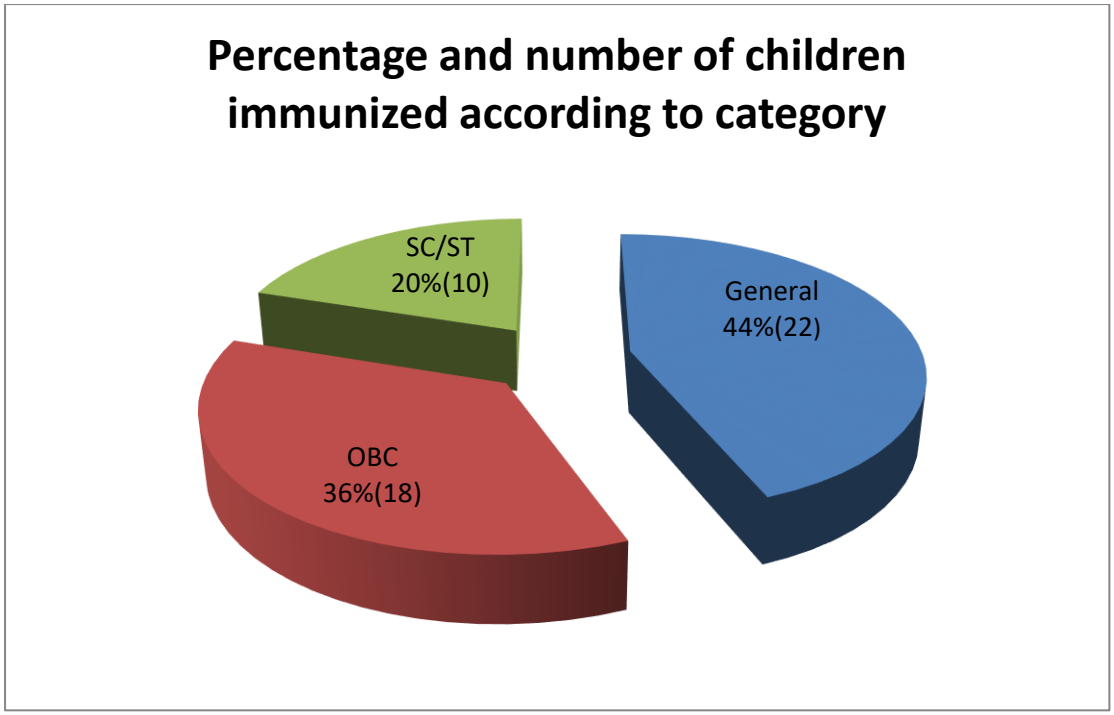


- Graph represent that mothers who are graduate their child are 100 percent fully immunized
- Mothers who have done 10+2 have got 95.4 percent (n=21) of their child fully immunized and 4.6 percent (n=1) partially immunized.
- Mothers who have done 10^{th} have got 60 percent (n=3) of their child fully immunized and 40 percent (n=2) partially immunized.
- Mothers who are $<10^{th}$ qualification 21.4 percent (n=3) of their child fully immunized and 78.6 percent (n=11) partially immunized.

Table 9: Categories wise children immunized.

General	22
OBC	18
SC/ST	10

Graph 6: Categories wise children immunized.

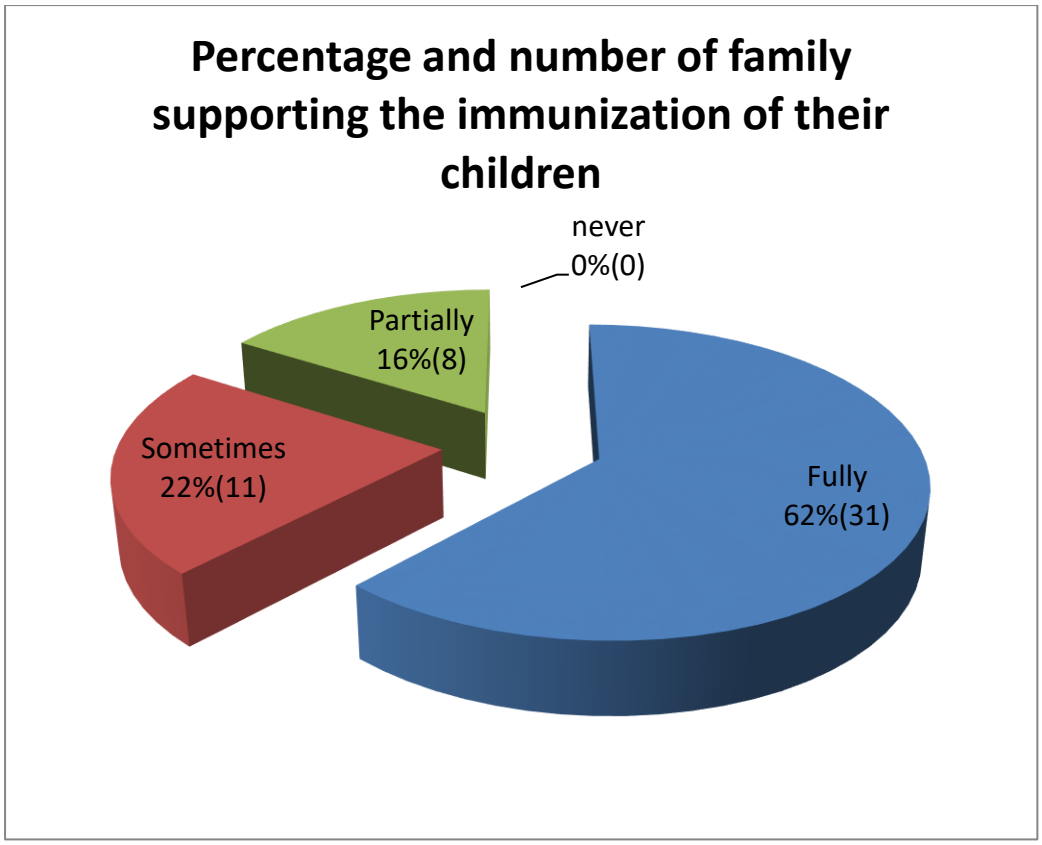


- Children belonging to General category are 44 percent (n=22) are immunized
- Children belonging to OBC category are 36 percent (n=18) are immunized
- Children belonging to SC/ST category are 20 percent (n=10) are immunized

Table 10: Family supporting immunization of their children.
n=50

Fully	31
Sometimes	11
Partially	8
Never	0

Graph 7: Family supporting immunization of their children.

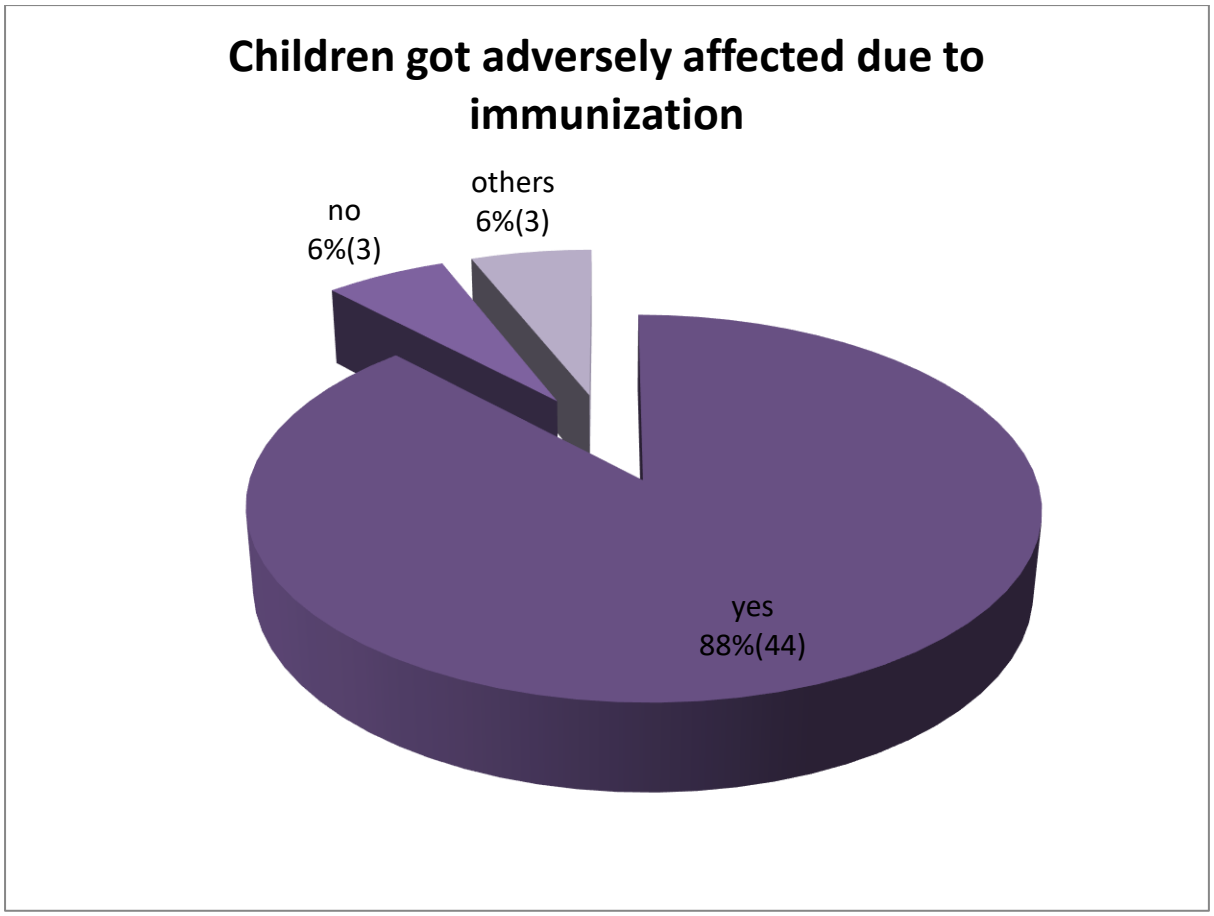


- Out of 50 families 62 percent (n=31) fully support immunization of their child
- Out of 50 families 22 percent (n=11) supports sometimes
- Out of 50 families 16 percent (n=8) partially support
- There was no any house which don't support immunization

Table 11: Children got AEFI (Adverse Effect Following Immunization) due to immunization.

Yes	44
No	3
Others	3

Graph 8: Children got AEFI due to immunization.

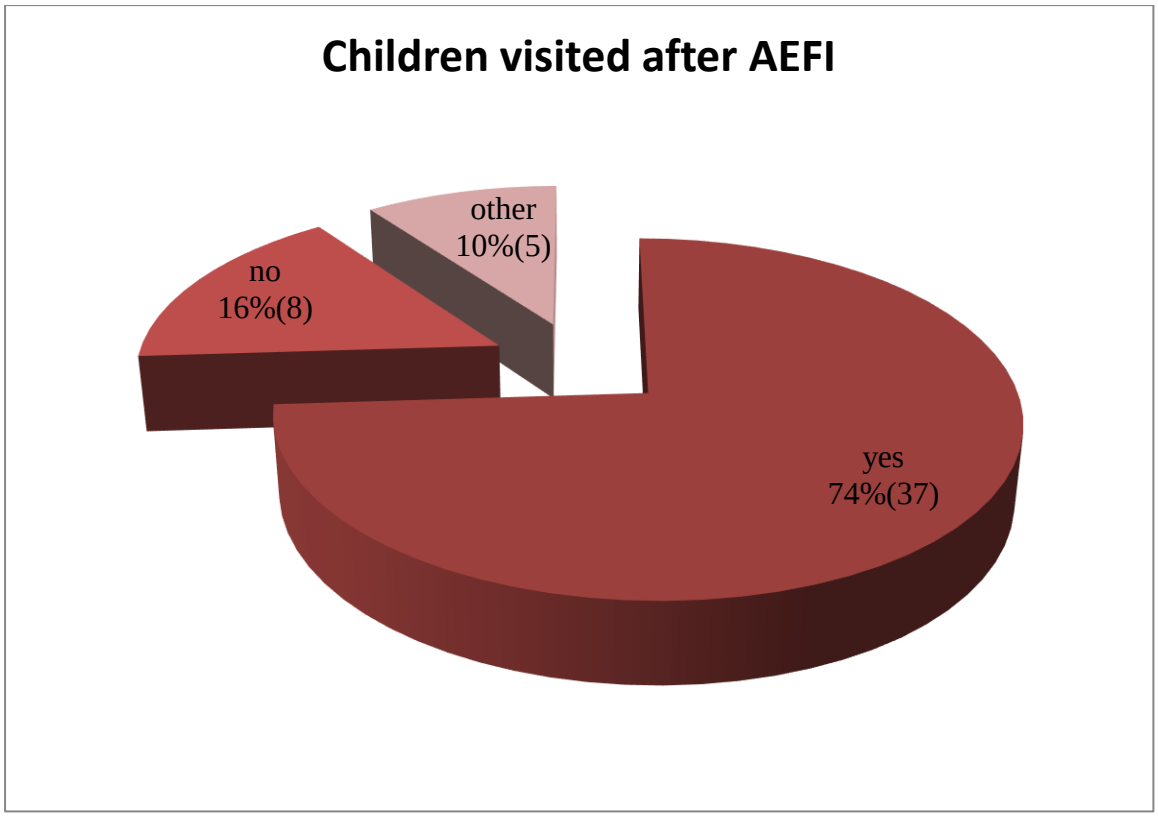


- Out of 50, 88 percent (n=44) got affected
- Out of 50, 6 percent (n=3) not get affected
- Out of 50, 6 percent (n=3) were either new born or has got first vaccine.

Table 12: Children visited even after AEFI

Yes	37
No	8
Others	5

Graph 9: Children visited even after AEFI



- Out of 50, 74 percent (n=37) visited again
- Out of 50, 16 percent (n=8) didn't visited again
- Out of 50, 10 percent (n=5) have some other reasons

Discussion

In this present study we came to know that children of 0-1 year living in Phulwarisarif block of Patna district are 70% (n=35) fully immunized and 30% (n=15) are partially immunized. There was no any child who was not immunized.

After having face-to-face interaction with the parents of all the children in the sample size i.e, 50 we found that 96% of parents are aware about immunization. This also shows that parents probably were well motivated and were aware about the benefits of getting child immunized. But at the same time we also came across that there was a difference of 20% in the immunization of a female child and a male child i.e, when 60% of male child was immunized then only 40% of female child got immunized. This may be due to the less no of girl child in that particular VHND site or may be the ignorance of parents towards a girl child.

It was also found out that approximately 66% of male child was fully immunized and in case of female child it was only 24% , in the situation of partial immunization 54% of female child are partially immunized and 47% of male child were partially immunized. Data showed us that the female child are mostly partially immunized whereas male child are mostly fully immunized.

When we analyzed the data we collected through our questionnaire it was found that the schedule of immunization was known only to 34% of parents of the surveyed children and rest 66% were not aware.

During face-to-face interview session we collected information about the education qualification of the mother of the children to find if there was any relation between immunization and qualification or not. The finding was that out of the sample of 50 children mother of 9 child were graduate and their child were fully immunized which signifies that she was motivated and had knowledge about benefits of immunization and its pattern.

Most of the mothers surveyed were qualified till 10+2 and their child were 95 percent fully immunized and only 5 percent are partially immunized. Mothers who were not qualified or were having $<10^{th}$ qualification their child were 22 percent fully immunized and 78 percent partially immunized. It clarifies that educational qualification is also having an impact on immunization as an educated individual can be easily motivated by giving information. Belonging to different category also having different level of immunization of their children general category children were 44 percent, OBC were 36 percent immunized and SC/ST were only 20 percent immunized. Support of the family has also a hand in the immunization 62 percent of the family are fully supporting immunization, 22 percent supports sometimes and partial support by 16 percent of the family.

The main reason for partial immunization was found because of the adverse effect of immunization. 88 percent children were adversely affected, 6 percent were not affected and the other 6 percent are either new born got first vaccine or not get vaccinated at VHND sites. But instead of AEFI 74 percent of children again visited for next vaccination, 16 do not visited and 10 percen either got migrated or had some other reason of not visiting again.

There were a lot of reasons for partial immunization of children out of which AEFI, education and lack of knowledge about immunization were found to be common. There were many misconceptions also among the people regarding immunization. The motivation for immunization was also not there.

Limitations of study

- The time was not sufficient (approx. 20 days).
- Lack of proper man power for survey.
- Sample size was very small.

Conclusion

The study was basically done for assessing the knowledge, practice and attitude toward immunization among the beneficiary i.e, parents of the children bought for immunization of age group 0-1 year.

It was found that still there are some population who are not aware about the immunization or have some misconception. Some population is having wrong or insufficient knowledge. A superficial knowledge of the schedule and failure of the authorities in inculcating enough motivation in the target population for completing the schedule, has led to a large proportion of the children being partially immunized.

Regular health education sessions and motivation through an encouraging and persuasive interpersonal approach, regular reminders and removal of misconceptions prevailing among people and improving the quality of the services at the health facility will solve the problems of partial immunization.

Summary

The present study was done for knowledge assessment of beneficiary about routine immunization by using random sampling technique. It has been found in the villages of phulwarisariff block of Patna district is having 70% fully immunized child and 30% are partial due to many reasons are less family support, less knowledge, not knowing about benefits of immunization, AEFI etc.

Observations/ Findings during study:

- Workload is high on health workers and has to be cover double the area allotted, leading to low coverage.
- HW visits the house but do not give appropriate knowledge regarding immunization to them.
- HW (ANM/AWW) was the main source of information to the people who have the knowledge about immunization.
- Health worker visits slum areas but still they were mostly less satisfied with their work.
- Due to AEFI lots of the family avoid immunization.
- Lack of motivation for immunization.

Suggestions:

- Motivation and education regarding immunization, and health workers should regularly visit the slum areas and keep his/her records updated, so that all children should be track down.
- To give regular training about immunization so that AEFI cases could be prevented.
- IEC/BCC activities for the community about the need of full and complete immunization.
- To have better facilities of immunization at the outreach areas which is not under any anganwardi center
- Hand on training to ANM/AWW to avoid misconception about immunization among the population.
- Child tracking system should be strengthen so that their family should be informed and updated about their vaccination.

ANNXEURE

Area visited: 5 VHND/Anganwardi sites visited

Name of VHND/Anganwardi sites visited	Code of the site
Bhusaulamuslimtola	
Bhusaulapaien	
Saraia+Hualsachack	
Nadiyawan+Alipur	
Alampur	

- **Questionnaire related to the survey done**

TO ASSESS THE KNOWLEDGE, PRACTICE

AND ATTITUTE OF BENEFICIARY TOWARDS

THE ROUTINE IMMUNIZATION

MOTHER'S NAME:-AGE:- CASTE:- OBC ☐ ST/SC ☐ GEN ☐

MOTHER'S EDUCATIONAL QUALIFICATION:-

HUSBAND'S NAME:-

CHILD NAME: - AGE: - SEX:-

AWW CENTER:-

VHSND NAME:-

VHSND CODE:-

Informed Consent

Namaste! We are from State Health Society Bihar, Patna conducting a survey to assess the knowledge, practice and attitude of beneficiary about Routine Immunization. We would greatly appreciate your participation in this survey.
We would like to ask you some questions about health services and awareness about immunization and some about the immunization of the children in the age group 0-1 year. The survey usually takes 20-30 minutes to complete. Information you provide will be kept strictly confidential and used only for research. This questionnaire is for immunization of children. We learn that there is a child in the age group 0-1 year in your house.
Participation in survey is voluntary, if you choose to participate, you may withdraw at anytime. However we hope that you will take part in survey since your participation is important.

May we begin the interview now?

- Respondent agrees to be interviewed……..1.Q.no1.
- Respondent does not agree to be interviewed……2.End.

Interviewer's Name: …… Date: …….

Signature. ……

Q.1:- How many child you have?

A: - one B:-Two

C:-Three D:-more than three

Q2:- Do you know about immunization?

A: Yes

B: No

Q3:- Are you aware about the benefits of immunization?

A:-Yes

B:-No

Q4:- Do you know about immunization pattern.

A: - Yes

B:-No

If yes then

Q3.1:- How many types

Q5: Do you get your child vaccinated?

A:-Yes

B:-No

If yes then

Q5.1:-how many till now

If no then

Q5.2:-Why not?

Q6:-Earlier were you get your child vaccinated?

A: - Aaganwadicentre B:-Govt.Hospital C:-Pvt.Hospital

Q7:-Have you ever paid money for vaccination of your child?

A:-Yes

B:-No

If yes then

Q7.1:-Were you have paid the money?

A:-Pvt. Hospital B:-Govt.Hospital
C:-Other

Q8:-Have you ever experienced the adverse effect after vaccination?

A:-Yes

B:-No

If yes then

Q8.1:-Then which type of effect and after which vaccination?

Q8.2:-Did you again visited for vaccination after adverse effect?

A:-Yes

B:-No

Q9:- How many times your child screened during vaccination?

A:-One B:-Two

C:-Three D:-More than three

Q10:-Did you get support from your family regarding vaccination of child?

A:-Fully B:-Sometimes

C:-No D: - Partially