INTERNSHIP TRAINING

AT

CARE INDIA, BIHAR

ANTE-NATAL CARE AND BIRTH PREPAREDNESS TRENDS AMONGST THE RECENTLY DELIVERED MOTHERS IN HALDI CHHAPRA VILLAGE OF MANER BLOCK OF PATNA DISTRICT, BIHAR

BY

VARUN KUMAR

PG/14/064

UNDER THE GUIDANCE OF

Dr. PREETHA GS

POST GRADUATE DIPLOMA IN HOSPITAL AND HEALTH MANAGEMENT

2014-16

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH, NEW DELHI

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Varun Kumar**, a student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at **Care India, Bihar** from **11th April, 2016** to **12th May, 2016**.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfilment of the course requirements.

I wish him all success in all his future endeavours.

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and having successfully completed his Project on

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Date: 12th May, 2016

Care India, Bihar

He comes across as a committed, sincere & diligent person, who has a strong drive & zeal for learning

We wish him all the best for future endeavours

CARE INDIA PATNA

Training & Development

for

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13/5/16

Certificate of Approval

The following dissertation titled **"ANTE-NATAL CARE AND BIRTH PREPAREDNESS TRENDS AMONGST THE RECENTLY DELIVERED MOTHERS IN HALDI CHHAPRA VILLAGE OF MANER BLOCK OF PATNA DISTRICT, BIHAR"** at **"CARE INDIA, BIHAR"** is hereby approved as a certified study in management, carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

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Certificate from Dissertation Advisory Committee

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This dissertation has the requisite standard and to the best of our knowledge. No part of it has been reproduced from any other dissertation, monograph, report or book.

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• Learning about the organization and the desired work profile.

Deliverables : Knowledge on the functioning of AWCs; ICDS organogram.

Strengths : Hard working, Dedicated to achieve the desired goals.

Suggestions for Improvement: —

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Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "**ANTE-NATAL CARE AND BIRTH PREPAREDNESS TRENDS AMONGST THE RECENTLY DELIVERED MOTHERS IN HALDI CHHAPRA VILLAGE OF MANER BLOCK OF PATNA DISTRICT, BIHAR**" and submitted by **VARUN KUMAR**, Enrollment No. **PG/14/064** under the supervision of **Dr. PREETHA GS** for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from **11th April, 2016** to**12th May, 2016** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Varun Kumar
PG/14/064
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ABSTRACT

Maternal mortality remains to be a significant burden in many of the developing countries. Reduction of MMR has been recognized as a priority across the global leaderships, with Millennium Development Goals (MDG) of the United Nations declared the target of achieving 200 maternal deaths per lakh of live births by 2007 and 109 per lakh of live births by 2015.

Majority of maternal deaths occur during labor, delivery, and within 24 hours post-partum. A major part of this is due to various socio cultural factors that affect the care seeking tendency of a woman and further in receiving the right and adequate treatment. Birth preparedness is a comprehensive cassette of advance planning and preparations for the upcoming event of delivery, which is proven to contribute much in reducing maternal deaths and complications. Birth preparedness helps ensure that women can reach professional delivery care when labour begins. In addition, birth preparedness can help reduce the delays that occur when women experience obstetric complications, such as recognising the complication and deciding to seek care, reaching a facility where skilled care is available and receiving care from qualified providers at the facility.

Seeing the importance of birth-preparedness in a population and on identifying the need, this study was designed to assess the statistics of birth-preparedness and Anti-natal care in Haldi Chhapra village of Patna district, Bihar. The study was conducted in a cross-sectional fashion, with 50 women who had delivered a baby in the past two months at the time of data collection. Interview technique was used for data collection, using a standard "LQAS+" tool of CARE India. Respondents were chosen by convenience sampling, and were personally interviewed. Data was then compiled and assessed with Microsoft Excel software, and presented in pie charts and bar graphs, as and where required.

The study revealed a wide list of gaps in pregnancy registration (40%), receiving ANC (60%; >=4 ANCs - 30%) and Nutritional supplementation (IFA – 40%) in the study population. It also suggested the limited awareness of women about major pregnancy-related complications and problems, and the trends of various components of birth preparedness. Although the trends of planning an institutional delivery were quite high (72%), but there was a major deficit in components like identifying a vehicle (36%), having a back-up plan (16%), choosing a companion to the facility (16%), preliminary preparations for a probable event of home delivery (1%), etc. It also indicated the inadequacy in FLW home visits & interactions during the course of pregnancy (34%).

Overall, the study suggests a major requirement of capacity building and activeness of FLWs in their areas, and brings forward the importance and need for regular home visits to the pregnant women, and the gross need for monitoring and supervision of FLW activities on VHSNDs and her regular day-to-day work.

ACKNOWLEDGEMENT

Every successful story is a result of an effective team work, a team which comprises of a good coach and good team players. Likewise this project report is no exception. This has been a meticulous effort of a group of people along with me. I want to take this opportunity to thank each and every one who has been a part of this report.

To start with, I take immense pleasure to thank **Dr. A. K. Khokhar** (*Director-International Institute of Health Management Research-Delhi*) and **Dr. A. K. Aggarwal** (*Dean, International Institute of Health Management Research- Delhi*) for placing me in such an esteemed organization (Care India) to perform my dissertation and start my career with; and my mentor, Dr. Preetha GS for her timely advice and encouragement for the successful conduction of my project.

I am highly indebted to Dr. Sunil Babu, Director, Nutrition Technical Support Unit, Care India, Bihar and Mr. Sharad Chaturvedi, Deputy Director, Nutrition Technical Support Unit, Care India, Bihar, for providing me with this opportunity to be a part of Nutrition TSU team at Care India, Bihar and giving me time and space from the induction and training schedule, to perform my fieldwork.

Also, I wish to thank Smt. Indira Devi and Mr. A. K. Mohan, for their continuous guidance in the training programme and arranging transport and other requirements for the completion of our desired field visit.

I then take this opportunity to thank the Front line workers, i.e. AWWs and ASHAs in Haldi Chhapra village, for being a constant source of support and guidance during the data collection in their village.

Lastly, I thank Mukhiya ji, Sarpanch ji, other dignitaries and the residents of Haldi Chhapra village, for being highly co-operative and for helping me in collecting the data for this report.

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LIST OF ABBREVIATIONS

MDGs	Millennium Development Goals
LQAS	Lots Quality Assurance Sample
FLW	Front Lin Worker
IFA	Iron Folic Acid
ASHA	Accredited Social Health Activist
VHSND	Village Health Sanitation and Nutrition Day
VHSNC	Village Health Sanitation and Nutrition Committee
BCC	Behaviour Change Communication
MLE	Monitoring Learning Evaluation
AWW	Anganwadi Worker
AWH	Anganwadi Helper
ICDS	Integrated Child Development Services Scheme
MDM	Mid Day Meal
INHP	Integrated Nutrition and Health Programme
SHGs	Self Help Groups
N-TSU	Nutrition-Technical Support Unit
ANM	Auxiliary Nurse Midwife
WHO	World Health Organization
MMR	Maternal Mortality Ratio
EDD	Expected Date of Delivery
TT	Tetanus Toxide
DDK	Disposable Delivery Kit
MoHFW	Ministry of Health and Family Welfare
MoWCD	Ministry of Women and Child Development
DPO	District Programme Officer
CDPO	Child Development Programme Officer

LS	Lady Supervisor
IEC	Information Education Communication
THR	Take Home Ration
HSC	Health Sub Centre
DRG	District Resource Group
BRG	Block Resource Group
ANC	Ante Natal Care
AWC	Anganwadi Centre

ABOUT THE ORGANIZATION

CARE INTERNATIONAL

CARE International is a leading humanitarian organization fighting global poverty. It places special focus on working alongside poor women because, equipped with the proper resources, women have the power to help whole families and entire communities escape poverty. Women are at the heart of their community-based efforts to improve basic education, prevent the spread of disease, increase access to clean water and sanitation, expand economic opportunity and protect natural resources. The organization also delivers emergency aid to survivors of war and natural disasters, and help people rebuild their lives.

In the fiscal year 2015, CARE worked in 95 countries around the world, supporting 890 poverty-fighting development and humanitarian aid projects to reach more than 65 million people.

CARE International is a global confederation of 14 National Members and one Affiliate Member with the common goal of fighting global poverty. Each CARE Member is an autonomous non–governmental organization and implements program, advocacy, fundraising and communications activities in its own country and in developing countries where CARE has programs.

At the beginning, there was a package: a CARE package, aimed to reduce hunger and show solidarity with the people of war-torn Europe.

At the end of World War II in 1945, twenty-two American charities, a mixture of civic, religious, cooperative and labor organizations got together to found CARE. Originally known as the *Cooperative for American Remittances to Europe*, it began to deliver millions of CARE packages across Europe. This was basically a small shipment of food and relief supplies to hungry recipients - with a huge impact on people's lives.

During the next three decades, CARE shifted its focus from helping Europe to delivering assistance in the developing world. It started programs in the areas of education, natural resources management, nutrition, water and sanitation, and healthcare in Southern Africa, South Asia and South America. Broadening the geographic focus and expanding beyond the original food distribution programs, CARE started to assist people affected by major emergencies – from famine in Ethiopia to hurricane recovery in Honduras.

Over the previous decades, Care has continuously developed its approach to reducing poverty. In 1945, CARE was established on the premise that poverty was mainly due to a lack of basic goods, services, and healthcare. As the organization grew, so did their understanding of poverty. CARE's scope widened to include the view that poverty is often caused by the absence of rights, opportunities and assets, largely due to social exclusion, marginalization, and discrimination. In the early 1990's, its work grew into what they call a 'rights based approach' to development.

In 1993, in an effort to reflect the wider scope of its programs, vision and impact, CARE changed the meaning of its acronym to *"Cooperative for Assistance and Relief Everywhere".* By 2007, it started focusing on women's empowerment realizing that women are the key: by empowering women entire families can be lifted out of poverty.

Some key networks in which CARE is involved or is a signatory to are:

- Code of Conduct for the International Red Cross & Red Crescent Movement at NGOs in Disaster Relief
- The Sphere Project
- Humanitarian Accountability Partnership International (HAP)
- Active Learning Network for Accountability and Performance in Humanitarian Action (ALNAP)
- People in Aid
- INGO Accountability Charter
- CARE is a signatory to and holds itself accountable to internationally accepted humanitarian standards and codes of conduct, and works with other aid organizations and United Nations agencies to improve humanitarian action and to influence policy.

CORE VALUES

Respect: Affirm the dignity, potential and contribution of participants, donors, partners and staff.

Integrity: Actions consistent with the mission. Being honest and transparent in what they do and say, and accept responsibility for their collective and individual actions.

Commitment: Work together effectively to serve the larger community.

Excellence: Constantly challenge themselves to the highest levels of learning and performance to achieve greater impact.

VISION AND MISSION

Their vision is to seek a world of hope, tolerance and social justice, where poverty has been overcome and people live in dignity and security. CARE will be a global force and partner of choice within a worldwide movement dedicated to ending poverty, and will be known everywhere for it’s unshakeable commitment to the dignity of people.

CARE strives to serve individuals and families in the poorest communities in the world. Drawing strength from their global diversity, resources and experience, they promote innovative solutions and are advocates for global responsibility.

CARE INDIA

CARE has been working in India for over 65 years, helping alleviating poverty and social exclusion by facilitating empowerment of women and girls from poor and marginalized communities. In India, CARE focuses on the empowerment of women and girls because they are disproportionately affected by poverty and discriminations; and suffer abuse and violations in the realization of their rights, entitlements and access and control over resources. They do this through well planned and comprehensive programmes in health, education, livelihoods and disaster preparedness and response.

To be able to bring about lasting change, CARE India addresses underlying causes of poverty and social injustice. For example, they implement a gender transformative framework within their programmes to address unequal power relations at the grassroots level.

Fig 1. CARE in India works across 14 States and 38 projects, touching the lives of 37 million people. (Headquarters in Delhi)

Some of the notable initiatives of CARE India are:

- CARE India response on Cyclone Phailin hit on the Eastern Coast of India.
- CARE India Tsunami relief programme.
- CARE India response to floods in Uttarakhand

CARE India has been working extensively in different parts of India. They work with grassroots initiatives, state and district governments, communities and individual from all over the country.

HISTORY OF CARE INDIA

CARE came to India in June, 1946 when one of its co-founder, Lincoln Clark, signed the CARE Basic Agreement in New Delhi at the Office of Foreign Affairs. The agreement was limited to contributions of technical books and scientific equipment for universities and research institutes. In November 1949, the first Chief of Mission, Melvin Johnson, arrived in India to establish operations. Subsequently on the invitation of the then President of India, he developed a CARE India Food Package that caused a renegotiation of the CARE Agreement to include importation of food through Indo-CARE Agreement on 6 March 1950. The CARE Office during 1950's in Delhi was a hutment (a long, thin building) located in Janpath, Connaught Place. CARE had three additional offices and warehouses in India located in Bombay, Madras, and Calcutta.

Fig 2. Early days of CARE India

The initial programmes those days included assistance to educational institutions, relief camps and assistance to hospitals in form of books, laboratory equipments, tools supplies etc. When the Mid-Day Meal (MDM - school lunch) program started in 1960, state offices were established and the staff in Delhi and state offices increased. Since 1960's CARE has been supporting government's school feeding programs. CARE has been providing nutritious food for the beneficiaries of Integrated Child Development Services (ICDS) on the request of GOI since 1982. CARE supported the Government's ICDS in the states of Andhra Pradesh, Bihar, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and West Bengal. As a part of support from USAID, CARE implemented a long term project named Integrated Nutrition and Health Project (INHP) from 1996 till 2010 and reached to about 1297 blocks in nine major states of India. Recognized worldwide for its contribution in disaster response and rehabilitation operations, CARE in India has supported the efforts of Government of India and individual state governments as and when major disasters occurred in the country. CARE has provided

relief to several natural disasters since 1966 with Jammu and Kashmir floods 2014 and Hud Hud in Andhra Pradesh being the most recent. Some of the efforts include response to flood relief in West Bengal in 1979, cyclone in Andhra Pradhesh in 1977 and in 1996, and earthquake relief in Latur, Maharashtra in 1993, and Odisha super cyclone in 1999.

CARE India's current 'Programme' approach stems from a redrawn vision, under which, working with partners on projects has been overlapped with holistic, long term, deep impact programmes that work directly with key populations to ensure that the root causes of poverty and marginalization of people, particularly poor women and girls, are tackled strategically and collaboratively.

As CARE India moves ahead, their key programming approaches will include social analysis and action, gender transformative value chain approaches, leadership and life skills strengthening, building capacities and leadership roles at multiple levels, advocacy on national and international platforms and facilitating links and dialogues between public, private and civil society.

FOUR MAIN FUNCTIONAL AREAS

Disaster Preparedness

Education

Health

Livelihood

CARE INDIA INITIATIVES IN HEALTHCARE

Delivering healthcare to over a billion people is a very complex challenge. CARE India works in close collaboration with State and Central Government and other partner organizations to secure accessible and quality maternal and child healthcare among marginalized communities. It works towards identifying the root causes of healthcare challenges, provides innovative solutions, and helps implement secure and quality healthcare services in India. CARE India believes that a healthy mother and a healthy baby is the route to a productive and a developed nation. Hence, CARE has specially focused upon providing comprehensive solutions to address public health problems. CARE India promotes essential new born care and immunization, reducing malnutrition, preventing infant and maternal deaths and protecting those affected by or susceptible to HIV/ AIDS and TB. CARE works closely with its partners to achieve good health care for everyone.

Various programmes of CARE India are:

- **EnSIGN:** Enhancing the Sustainable Farming Initiative through Gender and Nutrition. (Bankura District, West Bengal)
- **RACHNA:** Reproductive And Child Health Nutrition & Awareness. (Rajasthan)
- **HEVS extending CHCMI:** Health Education among SHG & VHSNC Members. (Puruliya, West Bengal)
- **SEHAT:** Sustainable Education and Health Among Tribals. **(**Sidhi and Shahdol districts of Madhya Pradesh)
- **BRIDDHI:** Ensuring improvement in the nutritional status among severely malnourished children through growth monitoring, Behaviour Change Communication, strengthening Health (including treatment) and Nutrition service delivery system. (West Bengal)
- **SWASTH:** Sector Wide Approach to Strengthen Health. (Bihar)
- **EMPHASIS:** Enhancing Mobile Populations' Access to HIV & AIDS Services, Information & Support. (Delhi NCR, West Bengal, Uttarakhand and Maharashtra)
- **OHSP:** Technical and management inputs to TMST, Government of Odisha Health Sector and Nutrition Plan. **(**15 districts of Odisha)
- **MDR-TB:** Treatment, adherence and follow up of Multidrug-resistant tuberculosis.
  (West Bengal)
- **SKEAP:** Strengthening Kala Azar Elimination Program. (Eight districts in Bihar)
- **Axshya:** Bridging one of the most challenging gaps in Tuberculosis control - diagnosis and treatment of DR-TB - through programmatic activities. (Madhya Pradesh, Chhattisgarh and Jharkhand)
- **BTAST:** Bihar Technical Assistance Support Team. (Bihar)

- **MPNP:** Madhya Pradesh Nutrition Project. (Tikamgarh, Panna and Chhatarpur districts of Madhya Pradesh)
- **Mother and Child Health Project**. **(**Odisha and Madhya Pradesh)
- **UHI:** Urban Health Initiative. (11 cities of Uttar Pradesh)
- **FHI:** Family Health Initiative. (Bihar)
- **N-TSU:** Nutrition Technical Support Unit. (Bihar)

DEPARTMENT WORKED IN : -

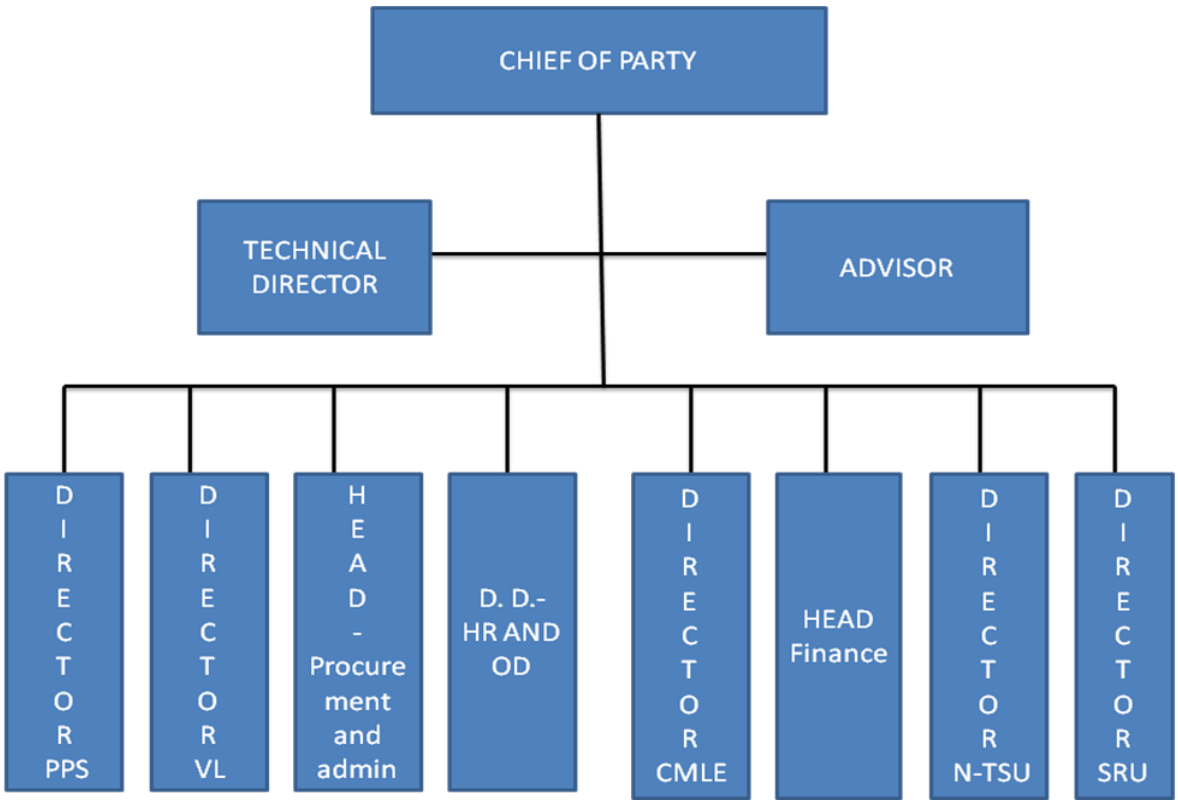
NUTRITIONAL TECHNICAL SUPPORT UNIT

For CARE India, the N-TSU project, funded by the BMGF, offers an opportunity to provide long term support to the Bihar state government's Integrated Child Development Services (ICDS) scheme. The ICDS scheme attempts to harness human, institutional and financial resources to do more, with high quality and with increased precision and efficiency. The goal of N-TSU is to achieve greater impact on the overall development of children in the state by addressing under-nutrition, especially focusing on Young Child Feeding practices, mainly through giving vigorous Home visits by the various stakeholders to the households of beneficiaries.

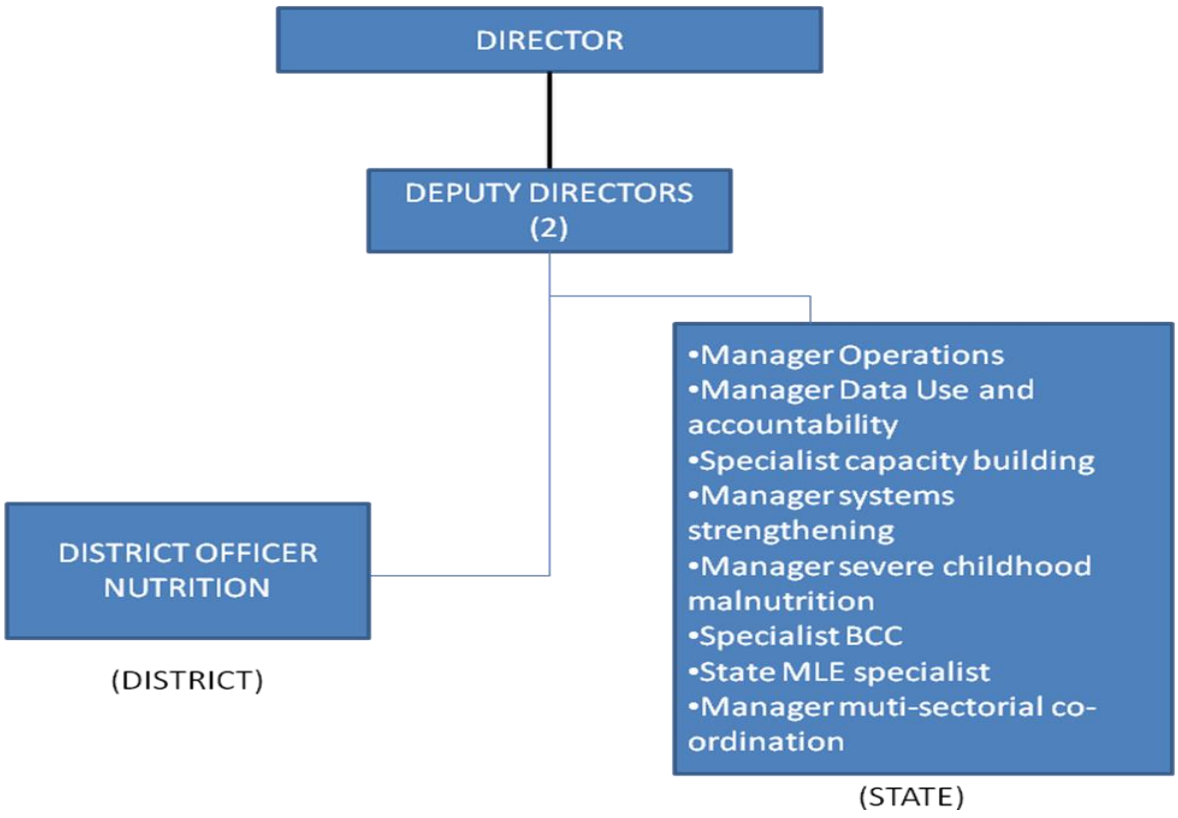
Recognizing that the Ministry of Women and Child Development alone cannot meet the needs of all children, CARE India is assisting the government to undertake convergence with other ministries and departments. CARE India is drawing from its field-tested, proven approaches to systematically create an enabling policy environment for ICDS, build trust across sectors, document models and promote convergence. Besides this, CARE India is facilitating training and capacity building of government functionaries, promoting safe drinking water, hygiene and sanitation at the household and community levels, promoting wheat fortification carrying BCC intervention, undertaking community mobilization and participatory governance. Finally, CARE India is responsible for working with block and district level ICDS personnel to improve their capabilities in data-driven management – using information to make evidence-based decisions to iteratively strengthen programs and improve outcomes.

Through monthly convergence meetings, N-TSU plans to re- establish the importance of convergence and coordination amongst the different government departments and other stake holders that contribute in reduction of malnutrition.

BIHAR MANAGEMENT TEAM:-



N-TSU PROJECT TEAM:-



KEY LEARNINGS

- An entire set of programmes are running under the MoHFW and MoWCD in the state of Bihar, but the ground level implementation and performance is in a miserable state.
- There is a huge communication gap and too much overlap and confusions in the work profiles of FLWs of ICDS and Health Department.
- Work profiles of government officials, i.e. DPOs, CDPOs and LSs in the Department of Social Work, Government of Bihar, is heavily loaded with add-on responsibilities like election duties, land issue resolutions, etc; which often results in a compromise with their actual job-specific work.
- The agony of cultural taboos is still widely prevalent in Bihar. Also, the caste system affects the functioning of the AWCs at large. There are a few communities like Mushahar and Passi, the presence of which is not acceptable to higher caste groups like Rajputs and Yadavs, which often results in preventing their children from going to AWCs if AWW or AWH belong to any other community or other caste groups are also benefitted at the same AWC.
- The physical state of AWCs is miserable, with unmaintained dust-filled registers, unreadable IEC on walls, no electricity and an acute shortage of space for the conduction of AWC functions, especially on VHSNDs.
- AWCs are equipped with Nutritional and Health education kits and materials, to be used by the FLWs on VHSNDs for educating women; but they are mostly unaware of the proper message to be communicated or the way to deliver it.
- People tend to look at an AWC as a spot to merely provide them ration and vaccinations, and thus are widely uninterested in the other services provided, and consider it to be a waste of time.
- There is a severe shortage of home visits by the FLWs, and this result in an improper knowledge of women on topics like exclusive breast feeding, complimentary feeding, family planning and birth preparedness.
- Since long, the entire focus in the field of healthcare in Bihar has been on immunization and institutional deliveries only, and thus the nutrition component was missed heavily, which has resulted in very high malnutrition rates in Bihar.
- There are huge gaps in the logistics or supplies of the essential materials like registers, growth charts, IFA tablets, THR, etc at the AWCs, which majorly affect their day to day functioning.
- A lot of meetings like ANM Tuesday meetings, HSC meetings, Sector meetings, DRG meetings, BRG meetings, etc are a part of general operations of the various stakeholders of health, but their regular conduction is a matter of question and a major challenge for the development partners like CARE.

DISSERTATION PROJECT

INTRODUCTION

Maternal mortality remains to be a significant burden in many of the developing countries. More than 40% of pregnant women are experiencing acute obstetric problems globally. Nearly about 300 million women (2007) in the developing world suffer from pregnancy and childbirth-related morbidities. [(1)]

Reduction of MMR has been recognized as a priority across the global leaderships. Millennium Development Goals (MDG) of the United Nations declared the target of achieving 200 maternal deaths per lakh of live births by 2007 and 109 per lakh of live births by 2015.

Majority of maternal deaths occur during labor, delivery, and within 24 hours post-partum. Not just the medical causes, numerous inter-related socio cultural factors also contribute for the delay in care-seeking and thus, contribute to these deaths. Care-seeking is delayed because of the delay in

- (a)Identifying the complication,
- (b)Deciding to seek care,
- (c)Identifying and reaching a health facility, and
- (d)Receiving adequate and appropriate treatment at the health facility.[(2)]

Birth preparedness—i.e. advance planning and preparation for delivery—can do much to improve maternal health outcomes. Birth preparedness helps ensure that women can reach professional delivery care when labour begins. In addition, birth preparedness can help reduce the delays that occur when women experience obstetric complications, such as recognising the complication and deciding to seek care, reaching a facility where skilled care is available and receiving care from qualified providers at the facility. Key elements of birth preparedness include:

• Attending antenatal care at least four times during pregnancy;
• Identifying a skilled provider and making a plan for reaching the facility during labour;
• Setting aside personal funds to cover the costs of travelling to and delivering with a skilled provider and any required supplies;
• Recognising signs of complications;
• Knowing what community resources like, emergency transport, funds, communications, etc. are available in case of emergencies;
• Having a plan for emergencies, i.e. knowing what transport can be used to get to the hospital, setting aside funds; identifying person(s) to accompany to the hospital and/or to stay at home with family; and identifying a blood donor. [(3)]

A proper assessment of the present statistics of birth preparedness in a state like Bihar (with a really high MMR) can help in giving direction for designing interventions to handle birth and pregnancy complications, address the gaps in birth preparedness practices and contributing to tackle the maternal morbidity and mortality significantly. Also, this is a key component of globally accepted safe motherhood programs.

PROBLEM STATEMENT

As per UN inter-agency estimates, global MMR (2015) is 216 deaths per 1,00,000 live births. (UNICEF). The World Health Organization (WHO) estimates that majority of maternal deaths occurs in the developing countries. Being a developing country itself, India is also facing the same challenges. With 181 maternal deaths per 100,000 live births, it remains a major public-health challenge in India. [(4)]

Bihar is known to be one of the most populated states in India, and related are its various health indicators as well. As per reported by UNICEF, MMR of Bihar state is 219 per 1,00,000 live births (2015). [(5)]

As majority of these maternal deaths are contributed by the delays in care seeking, and insufficient preparedness for birth and the possible complications; a proper ANC system and birth preparedness by the mothers and their families can serve a major purpose.

RATIONALE

Every pregnant woman is at a risk of any sudden and often unpredictable complication that could lead to death or injury to the mother or to her infant. Hence, it is highly necessary to practice strategies to tackle these problems as they arise.

There is evidence from studies conducted in different parts of the world that promoting Birth Preparedness improves preventive behaviors, improves knowledge of mothers about danger-signs, and leads to improvement in care-seeking during obstetric emergency. Various such studies are focused on states like Karnataka, Madhya Pradesh and Delhi, but no major evidence could be gathered in the context of Bihar. Thus, this study is being proposed, with the objective of assessing the status of Birth Preparedness and ANC trends amongst the women in Haldi Chhapra village of Maner Bock of Patna, Bihar.

The study is intended to serve as a needs assessment survey, designed to determine the level of awareness, attitude and behaviour of women and their families to birth preparedness, and complication readiness.

Keeping in consideration, the recall bias after a significant time lapse after delivery, and to assess the activities during the entire course of pregnancy, as well as, the time of delivery; the study was proposed to be conducted amongst the mothers of 0 to 2 months children.

OBJECTIVES

General Objective

To assess the status of Ante-Natal Care and Birth Preparedness amongst the mothers of 0 to 2 months old children in Haldi Chhapra village of Maner block of Patna district, Bihar.

Specific Objectives

- To determine whether pregnant women in the village get their pregnancy registered timely and receive appropriate Ante Natal Care.
- To determine whether women in the village get proper vaccinations and nutrition supplementations, as required during pregnancy.
- To assess the awareness of women about the possible complications during pregnancy and child-birth.
- To assess whether the women and their families keep a proper plan for child birth in place during their pregnancy.
- To review the status of visits and counselling by FLWs to pregnant women during their course of pregnancy.

LITERATURE REVIEW

Allyson C. Moran *et al* (2006) in their cross-sectional study entitled 'Birth-preparedness for Maternal Health: Findings from Koupéla District, Burkina Faso' published in the **Journal of Health, Population and Nutrition** conducted amongst 180 women of Western Africa, who had given birth within 12 months of the survey; found that 46.1% had a plan for transportation, and 83.3% had a plan to save money. Women with these plans were more likely to give birth with the assistance of a skilled provider. Most women saved money for delivery, but had less concrete plans for transportation. Their findings highlight how birth-preparedness and complication readiness may be useful in increasing the use of skilled providers at birth, especially for women with a plan for saving money during pregnancy. **(6)**

An article on 'Birth preparedness and complication readiness – a qualitative study among community members in rural Tanzania' by **Furaha August *et al* (2015)** published in the **Global Health Action Publishing** used FGDs as a tool for data collection. Twelve focus group discussions were held with four separate groups: young men and women and older men and women in a rural community in Tanzania. Results expressed a perceived need to prepare for childbirth. There was awareness of the importance of attending the ANCs, reliance on family support for practical and financial preparations such as saving money for costs related to delivery, tendency of moving closer to the nearest hospital, and also to use traditional herbs. Community recognized that pregnancy and childbirth complications are preferably treated at hospital. Facility

delivery was preferred; however, certain factors including stigma on unmarried women and transportation were identified as hindering birth preparedness and hence utilization of skilled care. [7]

A research article titled 'Awareness of Birth Preparedness and Complication Readiness in South-eastern Nigeria' published in **ISRN Obstetrics and Gynecology,** by **John E. Ekabua (2011)** talks about a multi-centric study involving 800 women. Educational status was found to be the best predictor of awareness of birth preparedness, but not a good predictor of intention to attend four antenatal clinic sessions. Plan to identify a means of transport to the place of childbirth was related to greater awareness of birth preparedness, and planning to save money for childbirth was associated with greater awareness of community financial support system.[8]

A study by **Acharya *et al* (2012)** published in the **Indian Journal of community medicine,** entitled 'Making Pregnancy Safer—Birth Preparedness and Complication Readiness Study Among Antenatal Women Attendees of A Primary Health Center, Delhi', conducted among 417 antenatal attendees at a primary health center, Palam, New Delhi from January to April 2012, indicated that the birth preparedness was very low (41%). Majority (81.1%) had identified a skilled attendant at birth for delivery. Nearly half of the women (48.9%) had saved money for delivery and 44.1% women had also identified a mode of transportation for the delivery. However, only 179 (42.9%) women were aware about early registration of pregnancy. Only one-third (33.1%) of women knew about four or more antenatal visits during pregnancy. Overall, only 27.8% women knew about any one danger sign of pregnancy. [2]

A study conducted by **Prof. Deoki Nandan *et al* (2008-09), NIHFW**, in association with **UNFPA and Department of Community medicine, S.S. Medical College, Rewa**, titled 'A study for assessing birth preparedness and complication readiness intervention in Rewa district of Madhya Pradesh' used a thirty cluster sampling technique to survey the study area. Seven indicators was developed and BP/CR Index was derived by them during data collection, supplemented with in -depth interviews, knowledge assessment of Skilled birth attendants and FGDs. Study reveals that HCPs have adequate knowledge of ANC, but they are not able to implement birth preparedness at community level. Birth Preparedness index in the study population was found to be quite low (47.5%). It was significantly high in above poverty line families, higher educational level and in-service and business group. Indicators like, knowledge of danger signs (18.6%), transportation services (18.6%), 1st trimester registration (24.1%) and population saved money (44.2%) was also found to be lower. [9]

Dr. Smitha P.K. (2011) conducted a study entitled 'Birth Preparedness and Complication Readiness of ASHAs under the safe motherhood intervention programme of NRHM at Koppal, Karnataka' at **Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram** to understand whether community health workers (CHWs) there are equipped with the knowledge and skills essential to help pregnant women developing complications get an appropriate health care; and if the support and supervision they get from higher authorities is adequate to carry out

their assigned tasks in a rural backward district of Karnataka. The results indicated a score for BP/CR out of 8, which showed a maximum score of 8 in 3(1.4%), 4-7 in 147(71%) and 1-3 in 57(27.5%). However, knowledge of antenatal care (ANC) components was good with >=90% in 104(50.2%) of ASHAs. Birth preparedness service provision was significantly associated with birth preparedness knowledge level, experience, number of rounds of training, practical training and recent training. **(10)**

METHODOLOGY

Study design and area

A cross-sectional observational study involving the mothers of recently born infants, residing in Haldi Chhapra village of Maner block of Patna district, Bihar.

Study population

Participants of this study were the women who had delivered a child in the past 2 months 29 days (i.e. the child is 0 to 2 months of age) and present in the village at the time of data collection, and consenting to participate in the study.

Sampling for the study

As per SRS 2011 population composition report, In Bihar, less than 4 year old children account for 10.2% of the population. Considering uniform distribution, children of 0 to 2 months of age will be approximately 0.64% of the total population.

The total population of Haldi Chhapra village is 25, 553, and considering the trends of population composition in Bihar, the approximate number of children in Haldi Chhapra in the age group of 0 to 2 months (and 29 days) would be nearly 113.

$$Sample\ Size = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1+(\frac{z^2 \times p(1-p)}{e^2 N})}$$

Where, N – Population size; e – Margin of error; z – Z score (based on the desired Confidence Level)

Using the above formula of Sample size calculation,

In our case, sample size = 114 (at 95% Confidence level and 5% Margin of Error)

Data Collection

Participants were identified by convenience sampling of eligible women present in the village at the time of visits. Data was collected by the means of surveying the participants, by personally visiting the households of the eligible respondents in the village.

Data collection for the study was spread over a period of 1 week duration, in the month of April, 2016.

Beforehand, all aspects of confidentiality were reassured. Only those who gave a proper consent, participated in the study. In case a respondent felt tired or uncomfortable, she was allowed to take a break, following which survey process could resume. The participants were free to terminate the survey at any time.

Tools and techniques

The data collection technique was survey-based, using the 'Ante Natal Care and Birth Preparedness' section of a standard pre-tested questionnaire, called "LQAS+", used by the Bihar TSU, Care India; specifically designed to target the mothers of children aged 0 to 2 months. (Along with a checklist to capture the status of government provisions and services like IFA logistics, referral system, home visits by FLWs, AWC functioning, etc)

Data analysis

The collected data was compiled and analysed using various functions in Microsoft Office Excel software. Frequency tables, Bar Charts and Pie Graphs are used to represent the findings of this study in the report, as and where required.

LIMITATIONS

- The sample size for this study was calculated by assuming a uniform distribution of children over the age group of 0 to 4 years, which is subject to contradictions.
- The population composition of Bihar state was assumed to be similar for the village as well, which may vary in reality.
- Due to a limitation of time for data collection, the intended sample size could not be met, which can result in a greater margin of error, and thus the results may have a slight deviation from the true picture of the study population.

FINDINGS (all figures in percentages)

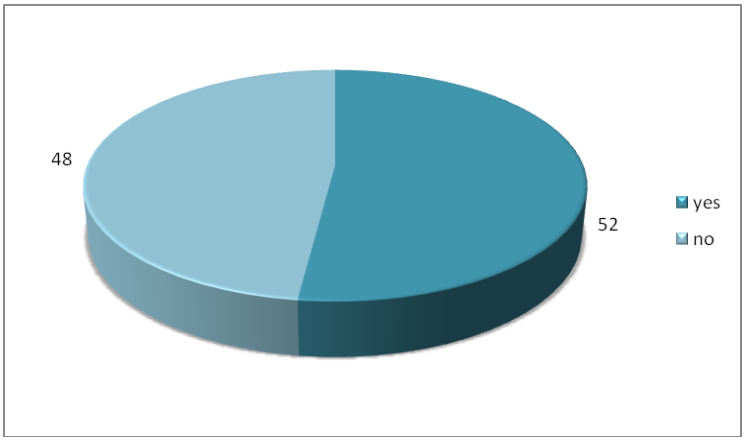


Fig 3. Proportion of women in the study group, who were aware of their EDD during pregnancy.

A major proportion of women in the community were unaware of their expected date of delivery, during the pregnancy period.

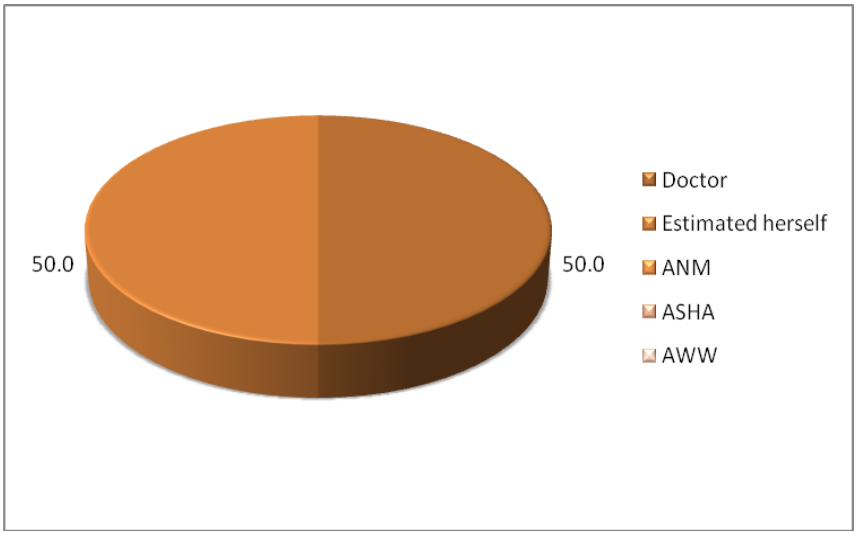


Fig 4. Out of the ones aware of EDD, how did the women got to know about it?

Amongst the women who were aware about their EDD, half of them got to know about this by either a Doctor, or estimated it herself; which directly suggests the deficient capacities of FLWs.

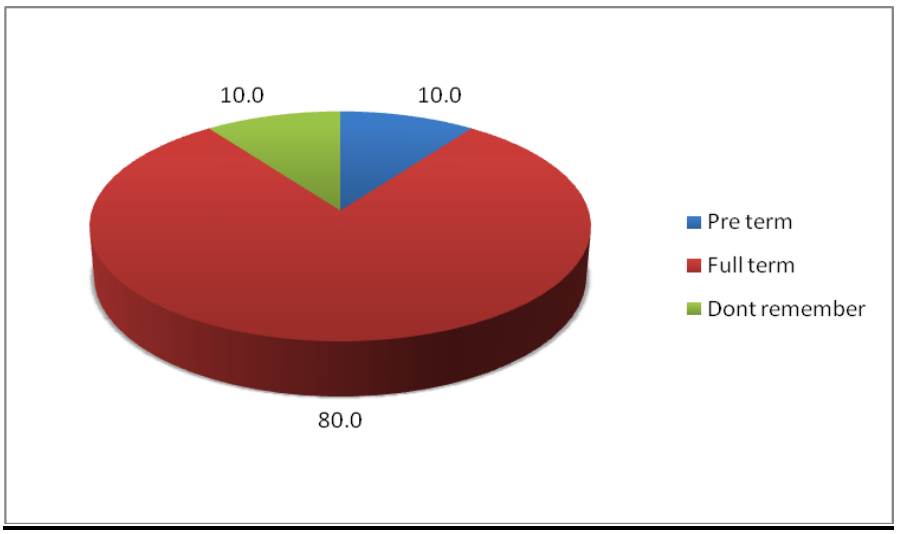


Fig 5. Proportion of full-time and Pre-term babies in the study group.

Most of the women in the study group had normal full-term deliveries, while 10% had pre-term and the rest eaither didn't remember or didn't knew.

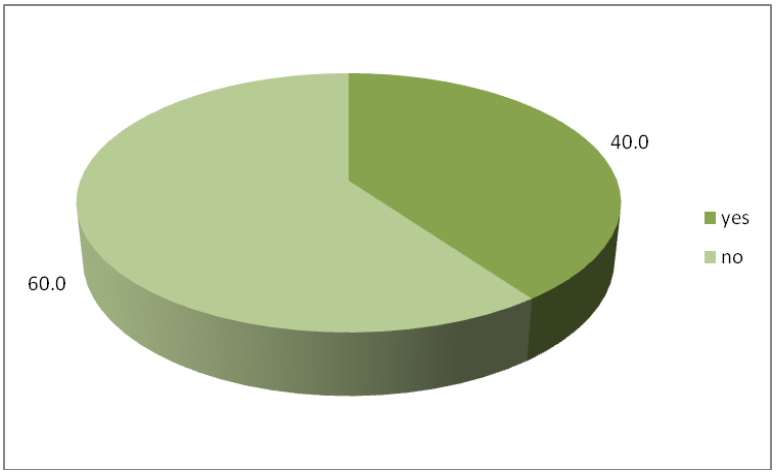


Fig 6. Proportion of respondents who got their pregnancy registered.

Only 40% of the women got their pregnancy registered with the AWC.

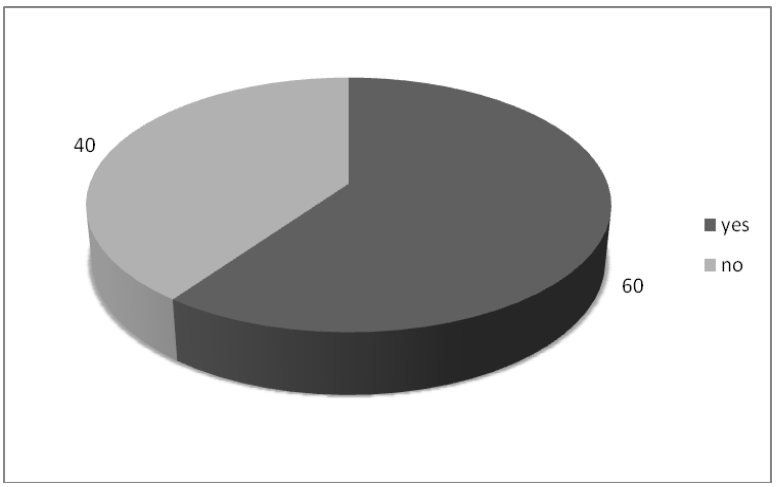


Fig 7. Proportion of women who ever received any ANC during their last pregnancy.

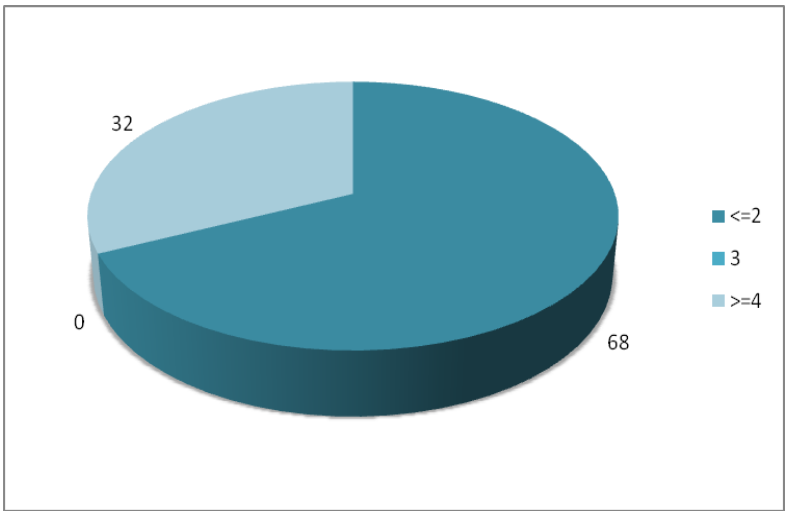


Fig 8. Out of the ladies who have recieved ANC, distribution of the number of times they recieved the ANC.

Only 60 % of the women recieved any ANC during their pregnacncy, and amongst them also, only 32% could receive 4 or more ANCs (as recommended).

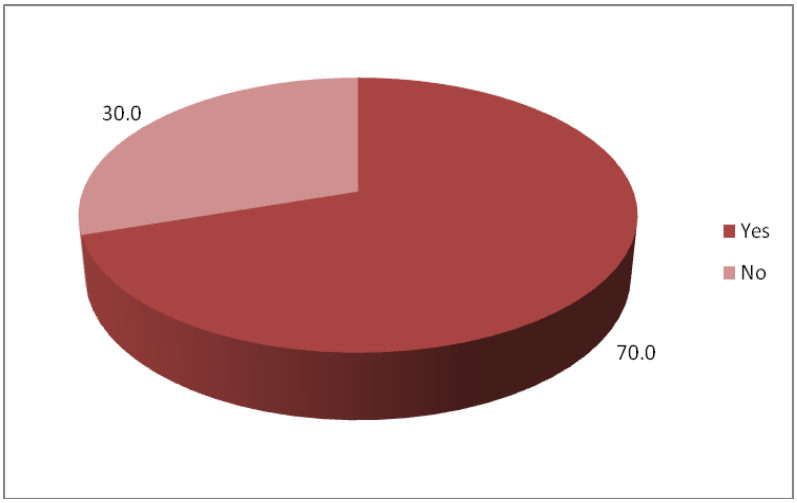


Fig 9. Proportion of respondents who recieved TT injections during pregnancy.

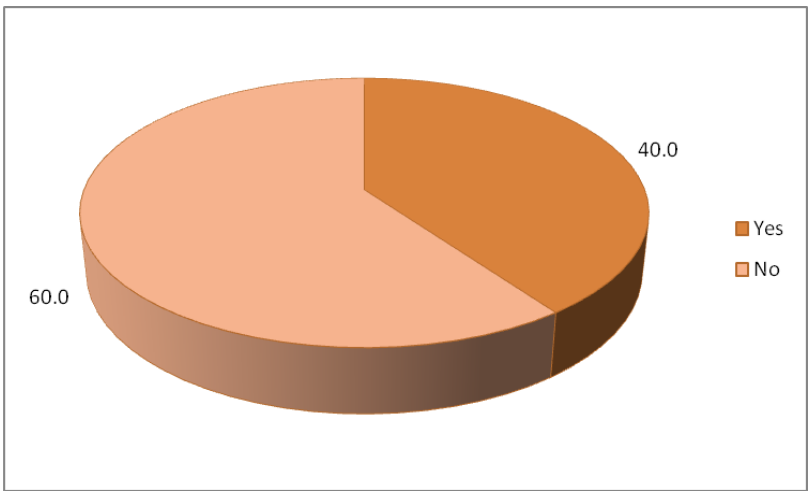


Fig 10. Trends of IFA consumption during pregnancy in the study group.

TT vaccinations during pregnancy showed a good trend (70%) but IFA consumption during pregnancy was highly inadequate (only 40%).

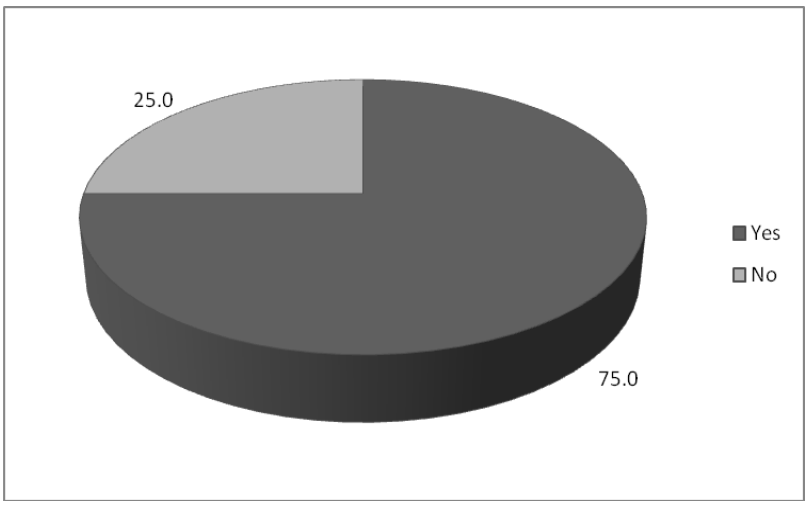


Fig 11. Out of the ones consuming IFA during pregnancy, trends of continued consumption post-partum.

Although the trends of IFA consumption doesn't seem to be good, the trends of continueing it post partum (75%) produce a better picture.

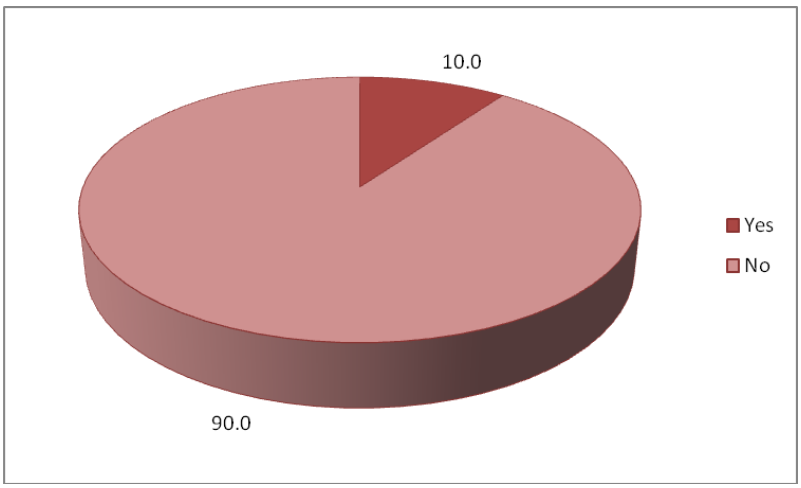


Fig 12. Proportion of women who received any advice regarding IFA consumption by FLWs.

There is a definite lack of counselling by FLWs on the importance of IFA supplementation, as just 10% have received a related advice.

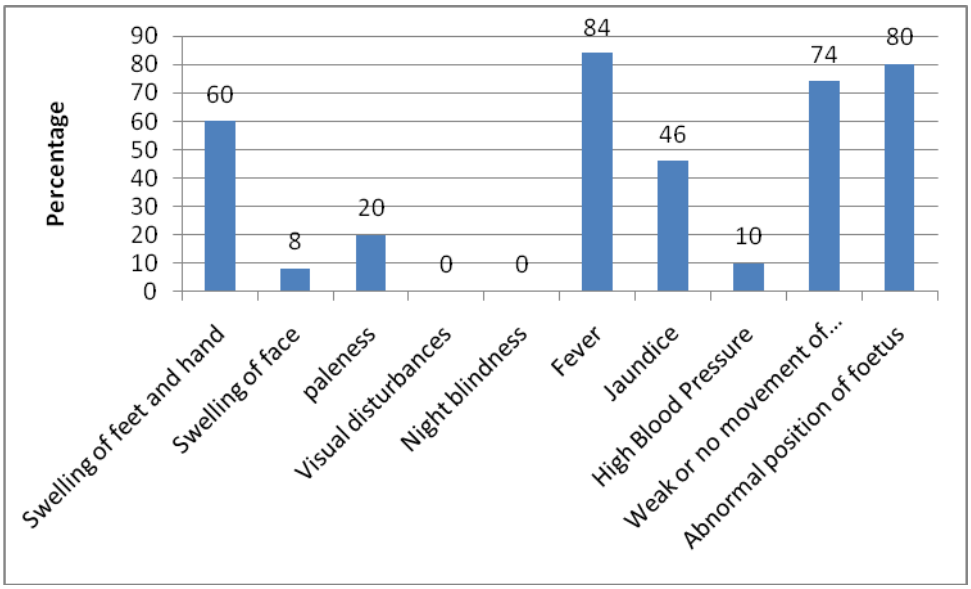


Fig 13. Awareness of the interviewed women about the various pregnancy related symptoms and problems.

The only signs and symptoms of possible complications that the women are aware of were fever, swelling in limbs and foetal disopositioning. All the other critical sgns were not popularly known and must be often getting unnoticed.

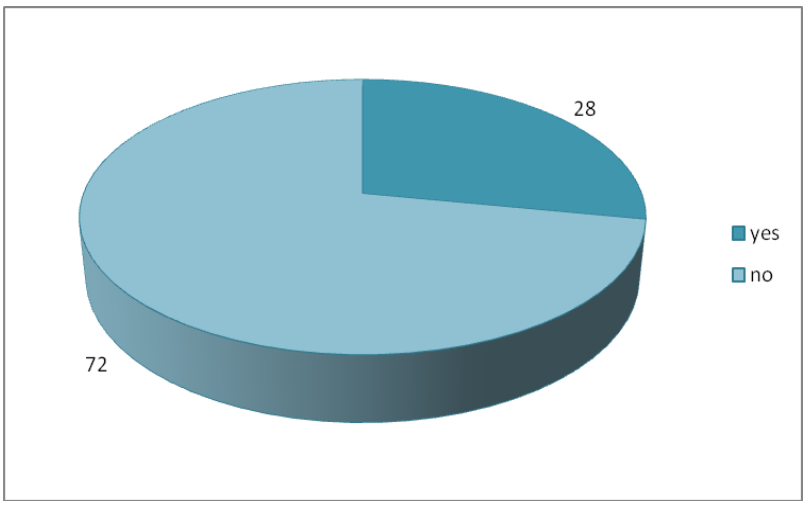


Fig 14. Women who have seeked treatment for any problem during pregnancy.

Only 28% of the women have had a treatment for any of the pregnancy related problems, so, either the rest didn't face any or they are unaware about the need for seeking a treatment.

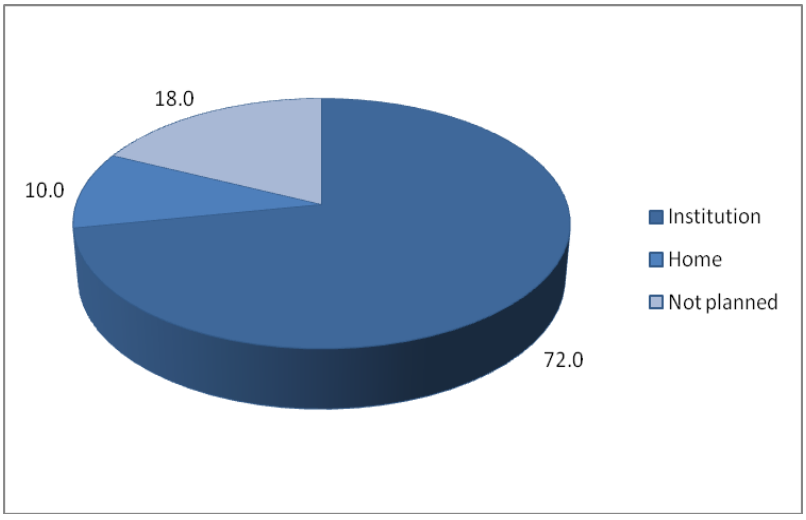


Fig 15. Where was the delivery planned to happen?

A good proportion (72%) of the deliveries were planned to happen in an institution, which is a pretty good trend to be present in the community.

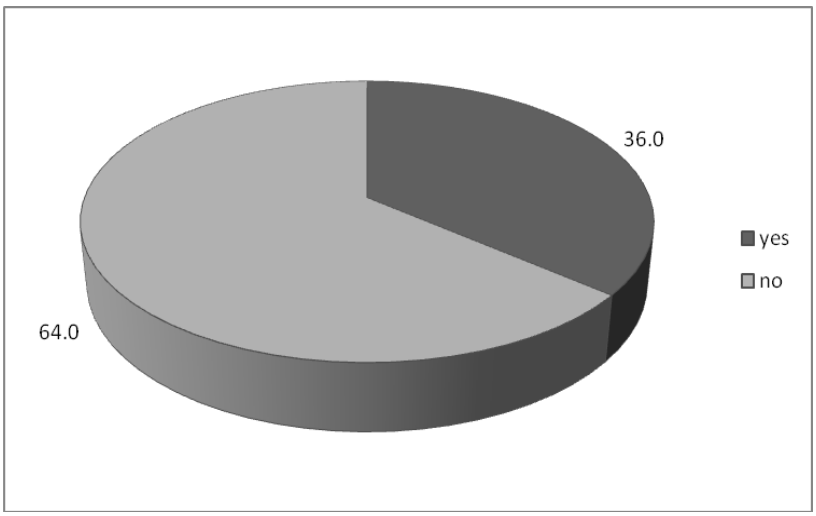


Fig 16. Was a vehicle identified to reach the facility at the time of delivery?

Only 36% were already prepared with a vehicle identified to take them to the facility for an emergency situation or delivery.

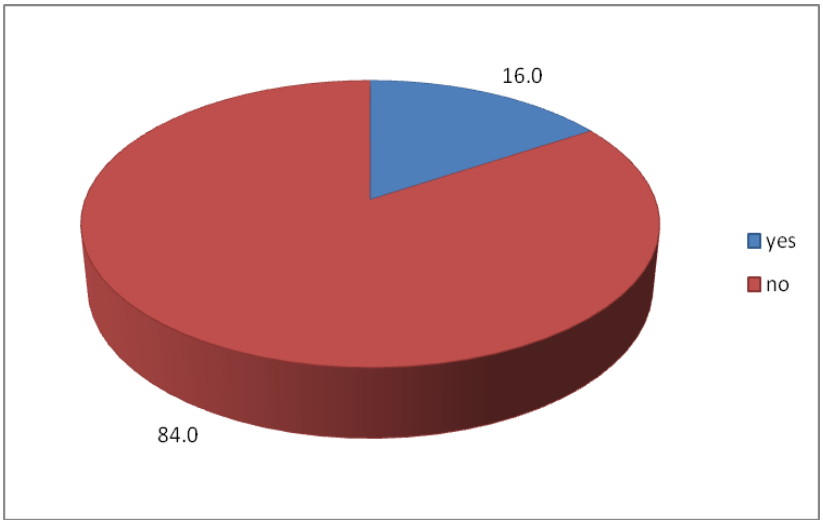


Fig 17. Was anybody identified to accompany the lady, to the facility or in emergency?

A very small proportion (just 16%) identified a companion for the pregnant lady to the facility, at the time of delivery.

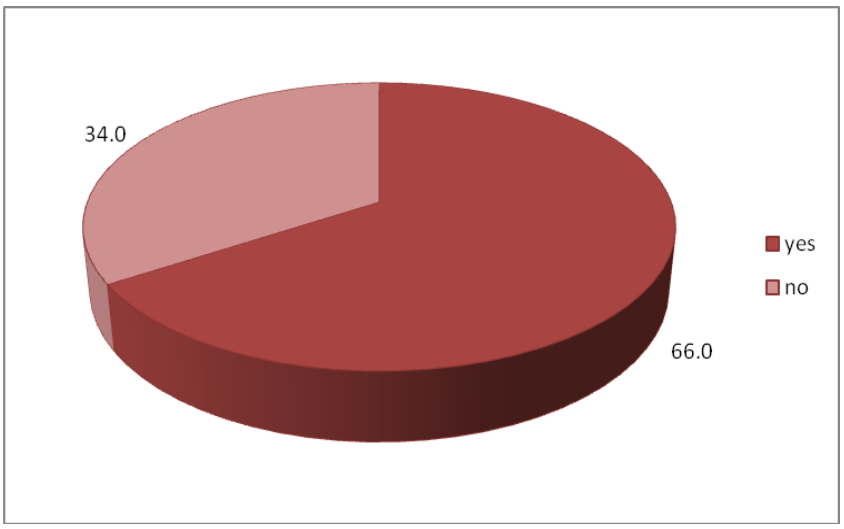


Fig 18. Did the family put aside some money for the event of the delivery?

The only good figure in terms of birth preparedness was seen in putting aside money for the event of delivery.

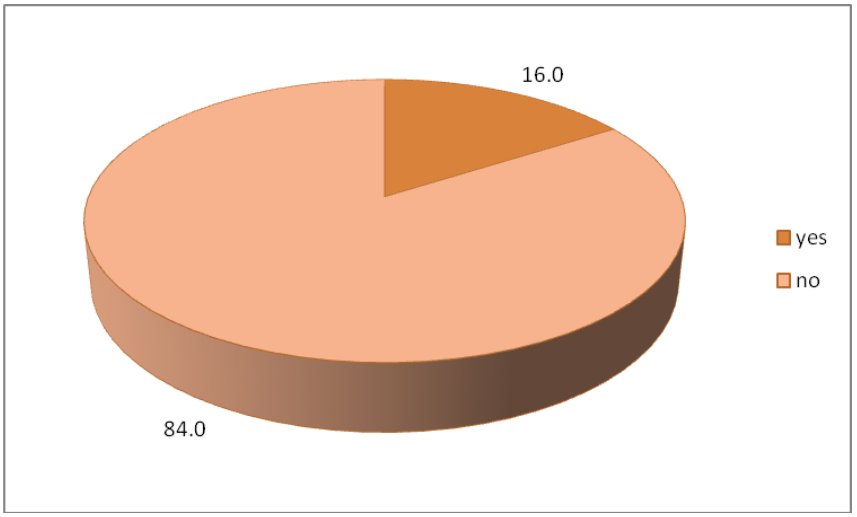


Fig 19. Was a back-up plan identified for serious emergencies?

Families of most women (84%) did not identify a back up plan forthe delivery event, which may be either due to an unawareness of people about the govt health referral system, or due to a gap in counselling given to them.

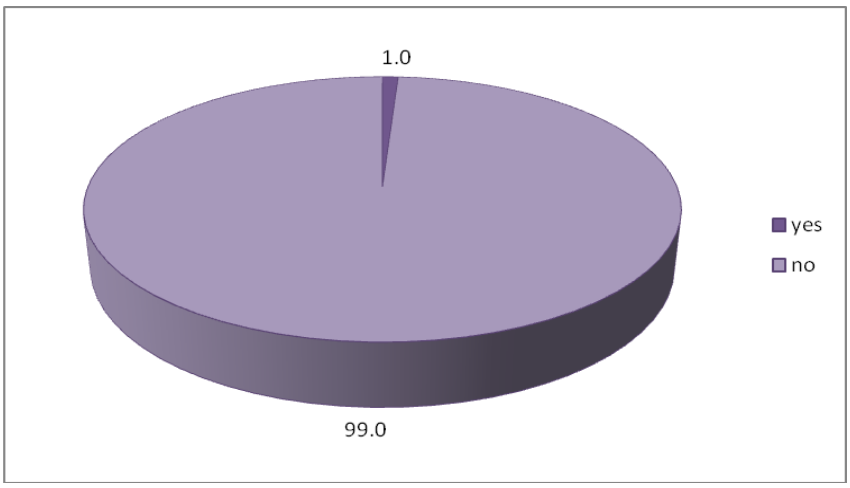


Fig 20. Was someone identified and informed to assist if the delivery was to happen at home?

Barely any of the respondents and her family had a person identified to assist in a home delivery, if in case required.

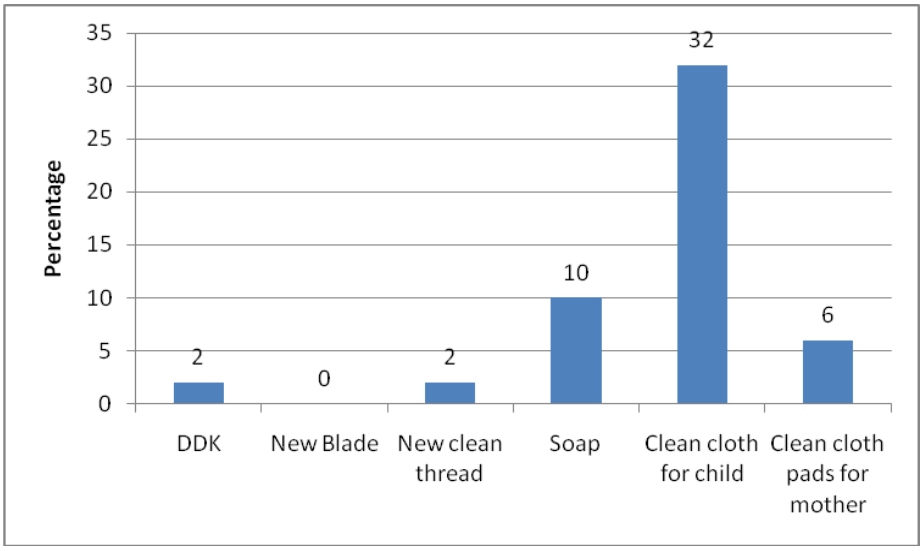


Fig 21. Were the things required for an emergency home delivery (*Prasav poorv kit*) kept ready?

The only thing that was ready for delivery during pregnancy was a cloth fir the baby. All other desired materials were misssing from the preparations talked about.

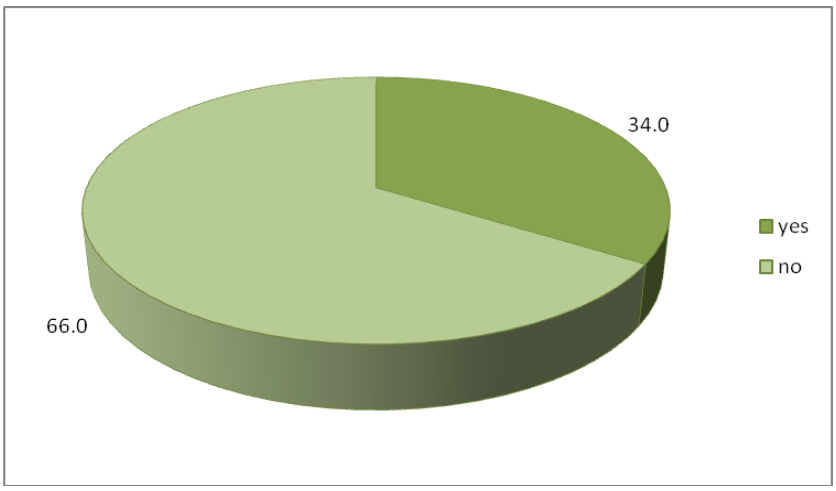


Fig 22. Proportion of women who recieved any interaction from FLWs during pregnancy.

Just 34% of the of the women had a personal interaction with any of the FLWs during the course of their pregnancy.

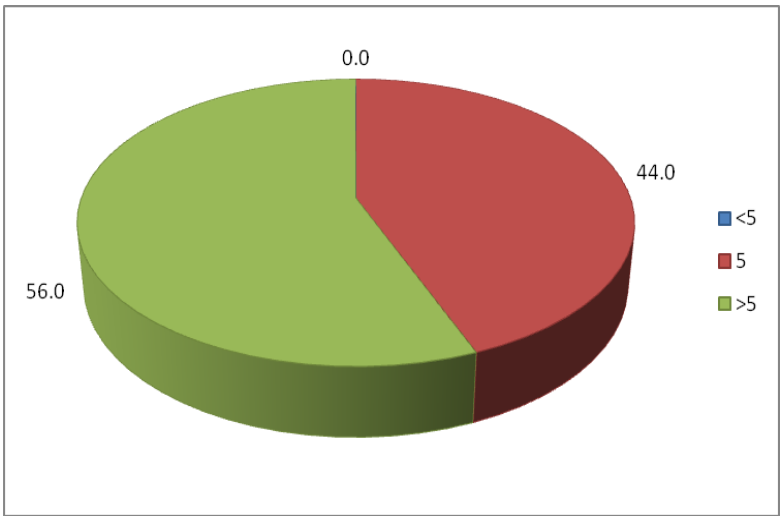


Fig 23. Amongst the ones reporting FLW visits, total number of visits by FLWs in pregnancy.

All the women receiving interactions from the FLWs were found to be getting this sustained through the entire course of their pregnancy, and received 5 or more such interactions in total.

DISCUSSION

Only half of the women in the village were aware of their EDD during their pregnancy, amongst which, either they came to know about this through a private doctor or estimated it themselves; also, only 40% of the women interviewed, got their pregnancy registered, all of which suggests the inefficiency and lesser activeness of Front Lines Workers in the village. Along with this, only about half of the interviewed women, ever recieved any ANC and amongst them even, only 32% recieved 4 or more ANCs; which suggests that the trends of pregnancy-specific care is quite deficient in this village.

A good proportion of women (70%) have recieved TT injections during their pregnancy, although the remaining essentially need to be targetted. While, just 40% ladies have ever consumed IFA tablets in the study group, 75% of the women consuming IFA during pregnancy have continued it post-partum as well. Alongside, merely 10% of women have recieved an advice for consuming full course of IFA from FLWs. Thus, the gap in IFA consumption could be a combined effect of the supply side problems in IFA tablets, lack of counselling by FLWs and the side effects caused by it. A proper councelling about the importance of these tablets and the management of side-effects may serve a greater purpose in this.

Pregnancy-related problems like Fever, Abnormal position of foetus, Weak or no movement of foetus and swelling of limbs was still popular in the population; while serious conditions like high blood pressure, facial swelling, jaundice, etc which can indicate major complications like aclypsia and PPH during child-birth, were found to be relatively less known. Only 28% of the women have ever seeked any medical assistance for the various problems during pregnancy, which is definitely not a good sign, as this can further aggreviate into much larger issues, and must be managed at the right time.

A good number, i.e. 72% of the deliveries were planned to be conducted in an institution, which is a very important part of birth preparedness. A reason for this might be the incentives which are given to ASHA workers for each insttutional delivery, due to which they are highly interested in popularizing this practice.

Although a fair proportion of women had planned an institutional delivery in advance, but a relatively lesser proportion could identify a vehicle to reach the facility at the time of delivery; also, families of a very few women in the study group identified a person to accompany her to the facility. Money is definitely a necessary requirement to handle the complications at the time of delivery, if it occurs, and a figure of 66% for this is a fairly good indicator of birth preparedness in the community.

Although most of the women could identify an istitution for thier delivery, but a majority of them did not had a back-up plan for handling an emergency situation at the time of delivery, and merely any of the women were prepared with a person to assist her for a home delivery, if it was to happen. Even after a robust distribution of *Prasav poorv taiyari* kits at the AWCs and a regular use of these kits in VHSNDs for educating the women on birth preparedness, there was a highly evident deficiency of keeping these items ready for the event of delivery.

A lack of FLW interaction is clearly evident in the community, and it is a very big concern, as they are a major source of proper information and capacity building of the women in a village. Although, atleast amongst the one's who recieved any interaction from FLWs, these interactions were fairly quite frequent, which is still a quite good picture, but indicates that the FLWs must be a little biased in her approach for choosing huseholds for her visits, either on the basis of the distance from her own place of stay or from the AWC, or alternatively, based on the caste composition in her area.

CONSLUSION

The various indicators assessed in the study indicate an entire list of issues and problems associated with birth preparedness and ANC trends amongst the recently delivered mothers in Haldi Chhapra village. Since the study group was comprised of mothers who have delivered in the past two months, the study potentially produces a near to present (last year) picture of the ANC and birth preparedness trends in the community.

A major gap was found in the tendency to get the pregnancies registered, and similar was the state of receiving a sufficient number of ANCs. This should be a major concern, because until a pregnancy is registered, none of the benefits can be given to the pregnant lady. Also, our focus should be to identify the complications on time and manage them, and a deficit of timely registration and insufficient ANC can alleviate the concerns.

The trends of TT vaccinations during pregnancy are surely good, but on the contrary, the picture of IFA consumption is not very good. This was further supplemented by a lack of counselling by FLWs about IFA supplementation. So, this serves to be ground to target the deficiencies in the implementation of nutrition-related interventions during pregnancy. A proper monitoring and regular refresher training of FLWs about the various techniques of community mobilization and her home visits can majorly help in improving these indicators.

A gross deficit was found in the awareness of women about the various pregnancy related problems and their management. Targeting this by intervening on the VHSNDs and Home visits in particular can aid in improving the picture of maternal morbidity and mortality in the community in particular, by means of early detection and treatments.

Although the trends of planning for institutional deliveries are quite good in the community, but in contrast to this, the birth preparedness trends produce a gloomy picture. Birth preparedness plays a significant role in reducing the chances of unmanageable pregnancy related emergencies, and a proper counselling by the FLWs is the only way to improve this amongst the population.

Overall, there is a wide scope to work on the FLW interactions and her activeness in operations in the community, which should be fairly available to all, irrespective of the socio-cultural or demographic factors; and this can majorly serve to improve the picture of malnutrition in the community as a whole.

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ANNEXURE

Survey Tool

(LQAS+)