A Study on

The Maternal-Newborn-Child Health and Continuum Care in EAG states

A dissertation submitted in partial fulfillment of the requirements

for the award of

Postgraduate Diploma in Hospital and Health Management

By

Anchita Rai

Roll No.PG/09/008

International Institute of Health Management Research

New Delhi

April,2011

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April, 2011

Certificate of Internship Completion

Date:……..

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This is to certify that Anchita Rai has successfully completed her 3 months internship in our organization from January 17, 2011 to April 16, 2011. During this intern she has worked on ……. (task performed) under the guidance of me and my team at …….(organsiation). …….(anypositive/negative comment)

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The following dissertation titled " **The Maternal-Newborn-Child Health and ContinuumCare in EAG states** " is hereby approved as a certified study in management carried out and presented in a manner satisfactory 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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This is to certify that Anchita Rai**,** a participant of the **Post- Graduate Diploma in Health and Hospital Management**, has worked under our guidance and supervision. She is submitting this dissertation titled "The **Maternal-Newborn-Child Health and Continuum Care in EAG states**" in partial fulfillment of the requirements for the award of the **Post-Graduate Diploma in Health and Hospital Management**. 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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ANCHITA RAI

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ABSTRACT

The Maternal-Newborn-Child Health and Continuum Care in EAG states

By

Anchita Rai

Background:- The government is spending large amount of the budget for health. Different types of programs are being implemented. Special focus is given to maternal and child health. Though there is decrease in maternal and child mortality but still it is very high.

Objective: To evaluate the MCH performance in EAG states employing HMIS

Methodology:- This study is a descriptive study. The study is a quantitative review with secondary data. For the state level analysis data is taken from two sources i.e. the Ministry of Health and Family Welfare's Health Management Information System (HMIS) portal and District Level Health Survey (DLHS) site. The data for India has been taken from DLHS-II and DLHS-III. The indicators has been taken for evaluation of status of MCH in EAG states are mothers registered in first trimester, mothers who had at least 3 ANC, mothers who got 1 TT injection, institutional delivery, children(12-23 months) fully immunized as performance indicators. Data analysis has been done and graphs showing differentials in different aspects are highlighted.

Conclusion: - Although special attention was given to these states but their performance still remains very low. The reasons need to be found and addressed. States like Orissa, Jharkhand and Madhya Pradesh have got tribal population who have superstitions about health and lack of awareness which lead to low health seeking behavior .

Geographic situation is also one of the barriers in accessing health services and by the last moment it results, difficulty for the health provider. A silver lining is the introduction of 108 services which has led to an increase in institutional delivery.

Another barrier is the absence of proper infrastructure and doctor patient ratio.

To reduce the maternal, infant and child mortality the government and the population have to work together to bridge the gap.

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ACRONYMS

ANC	Antenatal Care
ARI	Acute Respiratory Infecction
CMR	Child Mortality Rate
DLHS	District Level Health Survey
EAG	Empowered Action Group
HMIS	Health Management Information System
IMR	Infant Mortality Rate
MCH	Maternal and Child Health
NGO	Non Government Organization
ORS	Oral Rehydration Solution
RCH	Reproductive and Child Health
RRC	Regional Resource Center
TFR	Total Fertility Rate
TT	Tetnus Toxoids

PART I

1.1 Organization Profile

CHETNA (Centre for Health Education, Training and Nutrition Awareness) is a unique resource agency which provides support to Government and Civil Society organizations which raises health and nutrition consciousness among women, youth and children from disadvantaged social sections. It strives to bring about comprehensive gender-sensitive policies at the state, national, regional and international levels and networks globally to build strategic partnerships.

In August 1984, CHETNA received a core grant from Ford Foundation on child survival project. CHETNA was established in 1981 in Ahmadabad under the umbrella of Nehru Foundation for Development. This phase was action oriented. In order to conduct meetings more effectively, which were organized all over Gujarat, several resource materials were prepared in simple language with attractive visuals. The materials were related to information about programmes and activities on Nutrition and Health.

To demystify knowledge on health they started developing information packages. The Bal Sevika (Child Care) kit, Anemia and Women's Health Kit were among the first information packages they developed now CHETNA was widely recognized as a resource centre for nutrition and health activities, especially for capacity building training and development of educational materials.

A year long participatory evaluation process, facilitated by PRIA, New Delhi during 1990 enabled reflection and widening of the perspective of CHETNA team. During this period, CHETNA formulated its vision and mission and moved from mother and child health to women's health in life cycle approach with focus on Traditional Health and Healing Practices as a strategy.

A year long participatory evaluation process, facilitated by PRIA, New Delhi during 1990 enabled reflection and widening of the perspective of CHETNA team. During this period, CHETNA formulated its vision and mission and moved from mother and child health to women's health in life cycle approach with focus on Traditional Health and Healing Practices as a strategy.

CHETNA has completed more than 25 years journey and empowered herself with knowledge and skills related to capacity building of organizations working on the issues of women, young people and children, developing health communication material, networking and advocating for comprehensive and gender sensitive women, young people's and children's policies and programmes.

CHETNA designs illustrative print education material in simple local languages. The materials are extensively field tested among the community members before mass production. More than 50 IEC materials developed by CHETNA, effectively integrate relevant technical information with gender-sensitive messages and are perceived to be user-friendly and successful in creating desired behavior change in the community. Many of the printed health education materials have been mass-produced by Government of India and Government of Gujarat to be used in their programmes. CHETNA is a pioneer in designing innovative health communication strategies which are being mainstreamed in government and non government programmes and schemes.

Today CHETNA, by networking with other partner NGOs at state, national and international levels, works to bring forward the voices and realities of communities at the policy formation and programme planning levels. The methods include organizing consultations and ensuring participation of the community level stakeholders and civil society. CHETNA has also participated in the creating process of national and state level population policies and state level women's empowerment policies as well as the National Youth Policy. CHETNA takes its learning and understanding to the South Asian Region through its partnerships in the region.

CHETNA is identified as a Regional Resource Centre (RRC) for Reproductive and Child Health (RCH) for Gujarat state and the Union Territories of Daman, Diu and Dadra Nagar Haveli by Government of India. As the RRC, CHETNA extends its support to Non Government Organizations to systematically and effectively implement the programmes related to women, young people and children. RRC- CHETNA is an important link between the CBO/NGOs and the Health department both at the state and national level.

VISION

CHETNA envisions an equitable society where disadvantaged people are empowered to live creative, fulfilling and healthy lives.

MISSION

CHETNA works to empower children, young people and women, especially from marginalized social groups, to take control of their own, their families and their communities' health.

Values of CHETNA

- Commitment
- Honesty and Transparency
- Enhancement of Capacities
- True Value of Resources
- Non-Discrimination
- Accountability and Sincerity

CHETNA is committed to continue working in the area of empowerment of women, young people and children to take control over their own, their families' and communities' health and development.

CHETNA has now moved to its own office near Vadaj Bus Terminus. Nearly forty employees work from here in coordination with other partners to bring about the change in the health status of women, children and young people. Ms. Indu Capoor, the founder director, is involved at the policy to bring about the necessary changes. Ms. Minakshi Shukla and Ms. Pallavi Patel are two deputy directors heading various projects supported by the team.

CHETNA is involved in various women, child and young people related projects like CHANGE, SUMA, WHRAP , Child Right, Valuing the girl child etc.

1.2 My Role

My job profile at CHETNA was of Documentation and Knowledge Management Officer in the CHANGE project. The primary responsibility related with this designation is documentation of the innovative approaches , case studies, support partners for documentation, compile the experiences, learning . It involved travelling to various districts where the project was being carried in partnership with the NGOs working there, documenting the process, outcomes, experiences, information, suggestions, future course of action as needed. Documentation is very important for any project because it helps in keeping of records and also provides material for future actions.

During my tenure I had the chance to go in the villages which helped me have the insight in the ground realities. It made me know the challenges faced by the people in availing of the services and presented the realities of the health infrastructure. During my visits I came to realize that health department cannot work alone to improve the health of the people. It has to work in coordination with other departments because other factors affect the health and utilization of the health services.

PART II

2.1 Introduction

India has the second largest population and the first national population programme in the world. The population programme saw a paradigm shift during the last decade especially after the importance of reproductive health was recognized in 1994 at the International Conference on Population and Development (ICPD), Cairo. ICPD defined reproductive health as "a state of complete Physical, Mental and Social wellbeing not merely the absence of disease or infirmity in all matters relating to the reproductive system with couples being able to have sexual relations without fear of pregnancy and contracting disease." Reproductive morbidity is defined as "any morbidity or disfunction of the reproductive tract or any morbidity which is a consequence of reproductive behaviors including pregnancy, contraceptive use, abortion, childbirth or sexual behavior.(*WHO -1990)*

Death rates for children, and for women in child-birth are very sensitive indices of health of a health of a population. Health is a function of not only medical care but is an integral part of the developmental process of the society. It is not possible to raise the health status and quality of life of the people unless such efforts are integrated with the wider efforts to promote overall well being of the society.

The Reproductive and Child Health Programme (RCH) launched by Government of India (GoI) in 1996-97 in the country to provide quality services in the health sector and achieve multiple objectives. The program has ushered a positive paradigm shift from method oriented, target based services to providing client centered, demand driven quality services. A step further National Rural Health Mission (NRHM, 2005) the latest endeavor of GoI outlines its objective "to promote equity, efficiency, quality and accountability of public health services through community driven approaches, decentralization and improving local governance". Reduction in Child Mortality Rate (CMR) and Maternal Mortality Ratio (MMR), and Total Fertility Rate (TFR) along with universal access to public health services such as women and child health, providing water, sanitation and hygiene, immunization, and nutrition services and promoting access to improved healthcare at household level is the principle focus of this programme.

The National Rural Health Mission aims to reduce the Infant Mortality Rate to 30 per 1000 live births by 2012. This will require a further halving of infant mortality in a relatively short period of time. Though ambitious, this goal can be achieved with intensive efforts to scale up evidence-based child survival interventions backed by strong leadership, effective program management, and increased human and financial resources.

State/UT	Population (in '000)	Annual Exponential Growth Rate (%) 1991-2001	Sex Ratio (females per 1000 males) 2001	**C.B.R.** (Crude Birth Rate) 2002	**C.D.R.** (Crude Death Rate) 2002	Natural Increase (CBR-CDR) 2002	**I.M.R.** (Infant Mortality Rate) 2002	**T.F.R.** 2000	Mean age at effective marriage (females) 1999
INDIA	**1,028,610**	**1.93**	**933**	**25.0**	**8.1**	**16.9**	**63**	**3.2**	**19.6**
Bihar	**82,999**	**2.50**	**919**	**30.9**	**7.9**	**23.0**	**61**	**4.5**	**18.9**
Chattisgarh	**20,834**	**1.66**	**989**	**25.0**	**8.7**	**16.3**	**73**		
Jharkhand	**26,946**	**2.09**	**941**	**26.4**	**7.9**	**18.5**	**51**		
Madhya Pradesh	**60,348**	**2.18**	**919**	**30.4**	**9.8**	**20.6**	**85**	**4.0**	**18.8**
Orissa	**36,805**	**1.48**	**972**	**23.2**	**9.8**	**13.4**	**87**	**2.8**	**19.8**
Rajasthan	**56,507**	**2.49**	**921**	**30.6**	**7.7**	**22.9**	**78**	**4.1**	**19.3**
Uttar Pradesh	**166,198**	**2.30**	**898**	**31.6**	**9.7**	**21.9**	**80**	**4.7**	**20.1**
Uttaranchal	**8,489**	**1.76**	**962**	**17.0**	**6.4**	**10.6**	**41**		

Source - * 2001 Census (1)-(6)- SRS Estimates

,*,& = 2001

From above table of demographic profile of EAG states we can deduce that those states are not achieving the average level of India in MCH indicators.

Status of maternal health

Each year in India, roughly 30 million women experience pregnancy and 27 million have a live birth (MoHFW, 2003c). Of these, an estimated 136,000 maternal deaths and one million newborn deaths occur each year. In addition, millions more women and newborns suffer pregnancy and birth-related ill health. Not only does pregnancy and childbirth continue to be potentially hazardous to many women, but motherhood comes at too early an age for far too many women in India. About one third of women in India are married by the age of 15 years, and two third by 18 years. The median age at first birth is 19.6 years (NFHS-2).

2.2 Review of the Literature

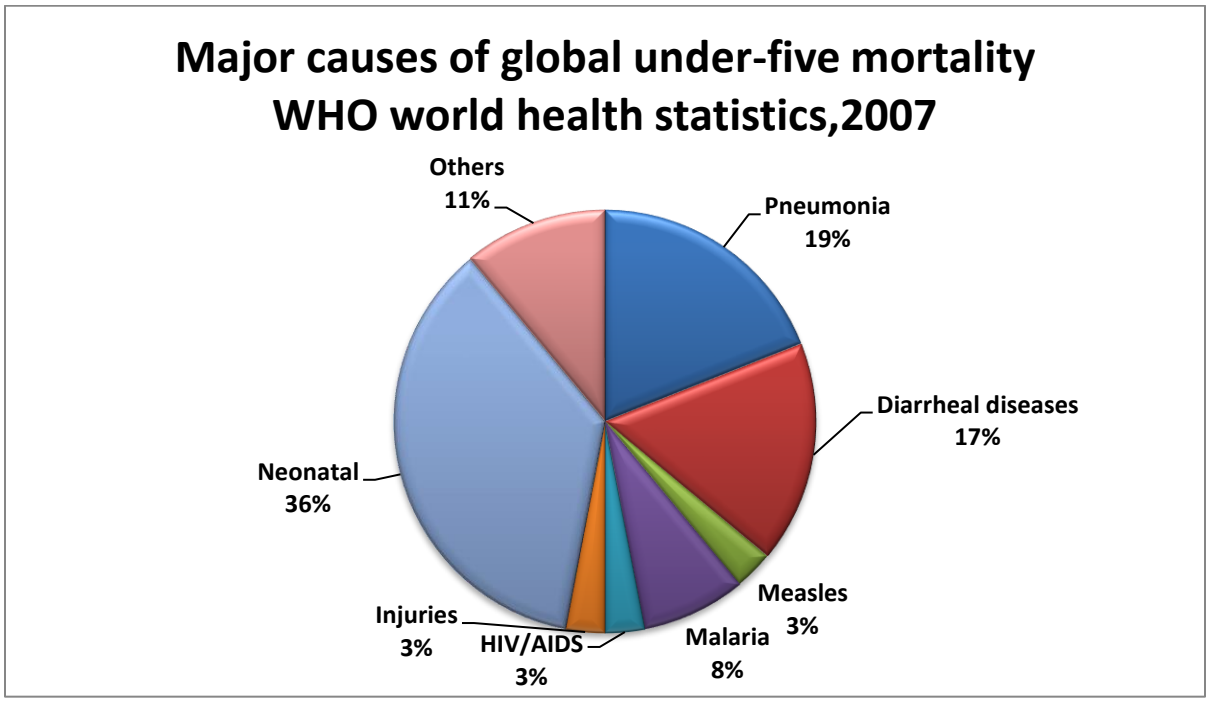
The current year marks the completion of two thirds of the period between the adoption of the millennium development goals (MDGs) and the target date of 2015. Although there has been some progress, it is incontestable that much more needs to be done. India contributes to 20% of births worldwide and has the highest proportion of children younger than 5 years. Global progress toward MDG 4 and 5 depends significantly on improvements in maternal and child health indicators in India. Although it has been reported that the country has made substantial progress, the pace has been slow and marred by vast regional variability. Certain states continue to have unacceptably high mortality and morbidity rates. This article provides a context to the current status of maternal and child health in India, highlights the achievements, and uses the available data effectively to emphasize the progress.[1]

In India the under-5 year death rate was 115 per thousand in 1990, which fell to 76 per thousand in 2006. Yet India needs to make faster progress in order to reach the Millennium Development Goal 4, meaning a 2/3 reduction of child mortality by 2015, in real terms down to 38 per thousand. Of the half a million women that die every year from maternal causes, approximately 100 000 are Indian. Progress has been slow globally, including in India, towards reaching the Millennium Development Goal 5 that calls for a 3/4 reduction in maternal mortality by 2015.Maternal and Child Health is an integral part of the vision of RCH program for reduction in infant and child mortality.[2]

One in five deaths to children under 5 years of age throughout the world each year occurs in India. 2.4 million children under 5 years of age die annually. Every minute, 3 infants under 12 months and 4-5 children under 5 years of age die in India. The main killers of children are diarrhea, pneumonia, neonatal diseases and malaria globally. Two thirds of death to children are preventable using simple, cost effective interventions.

National Health Policy 1983 envisioned significant reduction in IMR, NMR & CMR by 2000. All the child health programmes are directed towards achieving these goals.

Fig 1: Major causes of global Under 5 mortality WHO world health statics, 2007



Some of the causes of neonatal death are Birth trauma, Diarrhea, Asphyxia, Low birth weight, neonatal infection. Five avoidable causes accounted for nearly 1·5 million child deaths in India in 2005, with substantial differences between regions and sexes. Expanded neonatal and intrapartum care, case management of diarrhoea and pneumonia, and addition of new vaccines to immunisation programmes could substantially reduce child deaths in India.[3]

The Primary Health Care (PHC) has been globally promoted as a comprehensive approach to achieve optimal health status and 'Health for all'. The PHC approach, although, initially received the attention but failed to meet the expectations of the people in India. The child health programs in India had been started for long as verticals programs, which later on integrated and had been planned in a way to deliver the services through the PHC systems. Nevertheless, the last decade has witnessed many new initiatives for improving child health, specially; a number of strategies under National Rural Health Mission have been

implemented to improve child survival--Skilled Birth Attendant and Emergency Obstetric Care, Home Based Newborn Care, Sick newborn care units, Integrated Management of Neonatal and Childhood Illnesses, strengthening Immunization services, setting up Nutritional rehabilitation centers etc. However, for a large proportion of rural population, an effective and efficient PHC system is the only way for service delivery, which still needs more attention. The authors note that although there have been improvements in infrastructure, community level health workers, and availability of the funding etc., the areas like community participation, district level health planning, data for action, inter-sectoral coordination, political commitment, public private partnership, accountability, and the improving health work force and need immediate attention, to strengthen the PHC system in the country, making it more child friendly and contributory in child survival, in India.[4]

Skilled attendance at delivery is an important indicator in monitoring progress towards Millennium Development Goal 5 to reduce the maternal mortality ratio by three quarters between 1990 and 2015. In addition to professional attention, it is important that mothers deliver their babies in an appropriate setting, where life saving equipment and hygienic conditions can also help reduce the risk of complications that may cause death or illness to mother and child. Greater availability of obstetric services will not alone solve the problem of low institutional delivery rates. This is particularly true for the use of private-for-profit institutions, in which the distance to services does not have a significant adjusted effect. In the light of these findings a focus on increasing demand for existing services seems the most rational action. In particular, financial constraints need to be addressed, and results support current trials of demand side financing in India.[5]

Hemorrhage was the chief cause (31%) of maternal deaths; the other causes were obstructed labor, severe anemia, puerperal sepsis, and abortion. Young age at child birth and poverty were independently associated with increased risk of maternal death. Presence of complications during antenatal period was an important predictor of maternal death. Childbirth at home was associated with increased risk of maternal death. The study provides

clear evidence for renewed program efforts and strategies for reducing complications and maternal deaths..[6]

The United Nations (UN) Millennium Development Goals include a goal (MDG 4) to achieve a two thirds overall reduction of child deaths by 2015 compared with the 1990 level. Because many unvaccinated children die from measles, routine measles vaccination coverage is used as an indicator of progress toward this goal. In 2008, all UN member states reaffirmed their commitment to achieving a 90% reduction in measles mortality by 2010 compared with 2000, from an estimated 733,000 deaths in 2000 worldwide to <73,300 by 2010. The World Health Organization (WHO) and UNICEF have identified 47 priority countries with the highest burden of measles for an accelerated strategy for measles mortality reduction.[7]

Two doses of measles vaccine to children reduce measles related deaths. The first dose is delivered through the routine immunization system to infants and the 2nd dose through campaigns or routine immunization system, whichever strategy reaches the highest coverage in the country. Experience in 46 out of 47 measles priority countries has shown that measles vaccination using mass vaccination campaigns can reduce measles related deaths, even in countries where routine immunization system fails to reach an important proportion of children. The gradual adoption of this strategy by countries has resulted in 74% reduction in measles related deaths between 2000 and 2007. The 2010 goal to reduce measles mortality by 90% compared with 2000 levels is achievable if India fully implements its plans to provide a second dose measles vaccine to all children either through campaigns in low coverage areas or through routine services in high coverage areas. Full implementation of measles mortality reduction strategies in all high burden countries will make an important contribution to achieving Millennium Development Goal 4 to reduce child mortality by two thirds in 2015 as compared to 1990.[8]

These results of the study emphasize the need to improved antenatal and perinatal care to improve survival in the neonatal period. The strikingly high death rate due to diarrheal illness highlights the requirements for better sanitation and water quality.[9]

The importance of folate in reproduction can be appreciated by considering that the existence of the vitamin was first suspected from efforts to explain a potentially fatal megaloblastic anemia in young pregnant women in India.[10]

2.3 Rationale of the Study

Since CMR and MMR are important indicators of social development, it is vital for the policy makers, administrator and other stake holder of the public and private health care system to understand the pattern of decline in CMR and MMR .This study will help to understand the decline in CMR, MMR and present situation of performance indicators in public health care system and variation in EAG states and status of India.

Skilled attendance at delivery is an important indicator in monitoring progress towards Millennium Development Goal 5 to reduce the maternal mortality ratio by three quarters between 1990 and 2015. In addition to professional attention, it is important that mothers deliver their babies in an appropriate setting, where life saving equipment and hygienic conditions can also help reduce the risk of complications that may cause death or illness to mother and child. To prevent maternal mortality death, the minimum conditions that need to be taken care are early visit to the health provider to access the risk factors, regular check up and delivering the child in safe environment. The indicators selected for the study shows the percentage of women fulfilling the minimum criteria which helps in reducing maternal mortality.

The infant death depends on the factors like ARI, Sepsis, diarrhea, hypothermia, asphyxia, birth trauma and low birth weight.

The main causes for child mortality are acute diarrhea, malnutrition, malaria and vaccine preventable diseases. A child's death can be prevented if there is awareness and knowledge about the causes and timely intervention.

As empowered action group states have high maternal, child and infant mortality, the factors influencing MCH performance is prevalent in those states. Through various programs and mission the government pays special attention to these eight states due to their low performance. This study has been done to know the present scenario in these eight states.

2.4 Objective of the Study

General Objective: To evaluate the MCH performance in EAG states employing HMIS

Specific Objective:

1) To ascertain the state wise differential in maternal and child health status.
2) To appraise the retention of supportive health care strategy in performance of MCH indicators.

2.5 Methodology

This study is a descriptive analysis of trends . The study is a quantitative review with secondary data. The data for present analysis has been taken from two sources. For the state level analysis data is taken from the Ministry of Health and Family Welfare's Health Management Information System (HMIS) portal and District Level Health Survey (DLHS) site. The data for India has been taken from DLHS-II and DLHS-III.

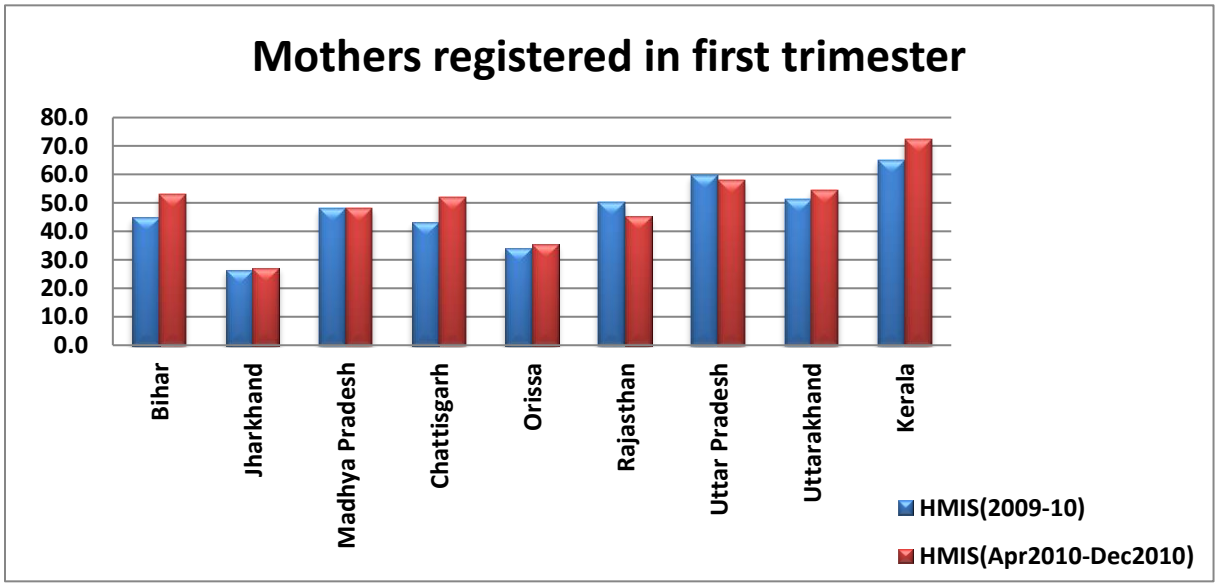
The indicators has been taken for evaluation of status of MCH in EAG states are mothers registered in first trimester, mothers who had at least 3 ANC, mothers who got 1 TT injection, institutional delivery, children(12-23 months) fully immunized as performance indicators. To analyze the performance of the EAG states, a comparison between EAG states and randomly selected good performing state namely Kerala has been done. Data analysis has been done and graphs showing differentials in different aspects are highlighted. For the first objective the data has been analyzed each indicators separately.

2.6 Results/ Findings

A.1 Mothers registered in first Trimester

Assessment of risk factors largely occurs at the first visit. Prenatal care is important in screening for various complications of pregnancy. This includes routine office visits with physical exams and routine lab tests. A pregnant woman enters the RCH system when she gets herself registered for ANC. Registration in the first trimester gives an opportunity to screen her for anemia and other Health conditions and provides her the first dose of tetanus. It also increases the likelihood that the woman will choose skilled attendance at birth. Registration and ANC in the first trimester is an indirect indicator of availability/access to services and awareness/ health seeking behavior in the context of RCH.

Fig1: Mothers registered in first trimester



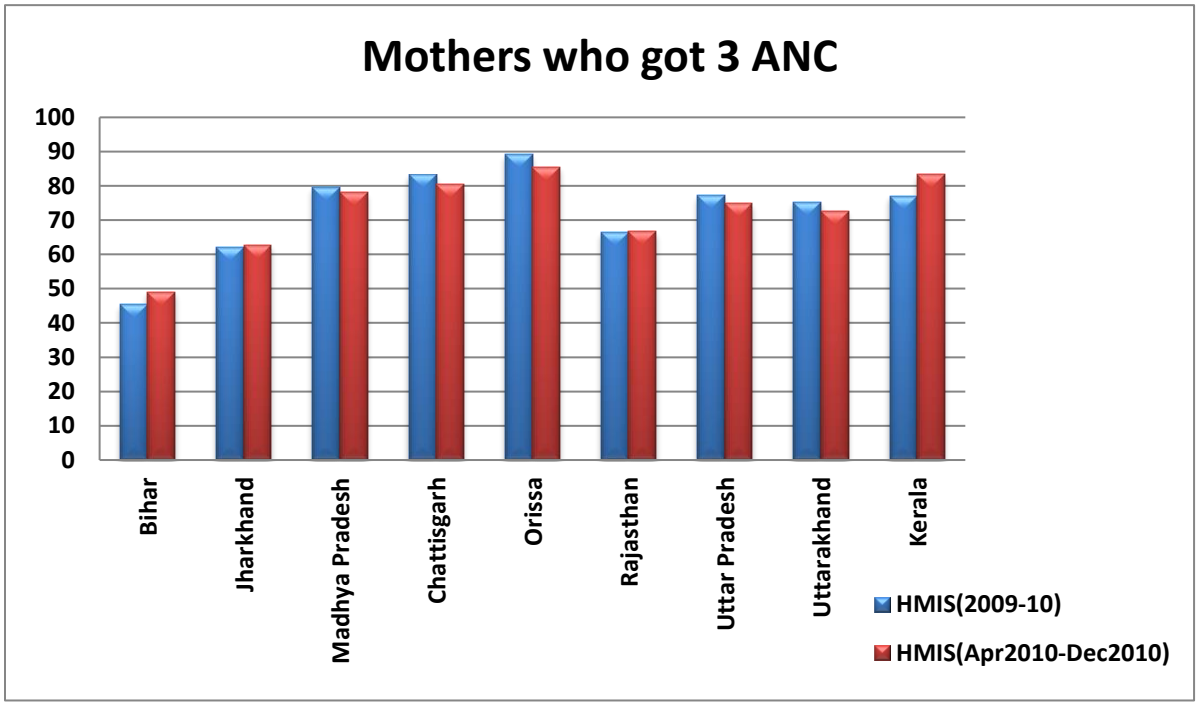
The above graph shows that the number of women registering in their first trimester is very poor. Out of eight states, only three states Rajasthan, Uttar Pradesh and Uttarakhand crossed the fifty percent in 2009-10. In the year 2010-11, Bihar and Chattisgarh also crossed fifty percent. Rajasthan and Uttar Pradesh showed decrease in registration in the year 2010-11. Jharkhand reports the lowest registration at 27.1 percent while Uttar Pradesh reports the

highest at 58 percent. According to the HMIS data, the performance of Kerala is not as expected. The data at the data entry level needs to be checked.

A.2. Mothers who had at least 3 ANC

ANC visits are a unique opportunity for early diagnosis and treatment of problems (anaemia, vaginal bleeding, pre eclampsia / eclampsia, infection, abnormal foetal position after 36 weeks, abnormal foetal growth or movement, HIV, syphilis, malaria, malnutrition) in the mother and prevention of problems in the newborn. RCH programme envisages a minimum of 3 ANCs by ANM or medical officer. Counselling on nutrition and provision of IFA supplementation both for prophylaxis and treatment of Anaemia is a part of ANC.

Fig 2: Mothers who had at least 3 ANC

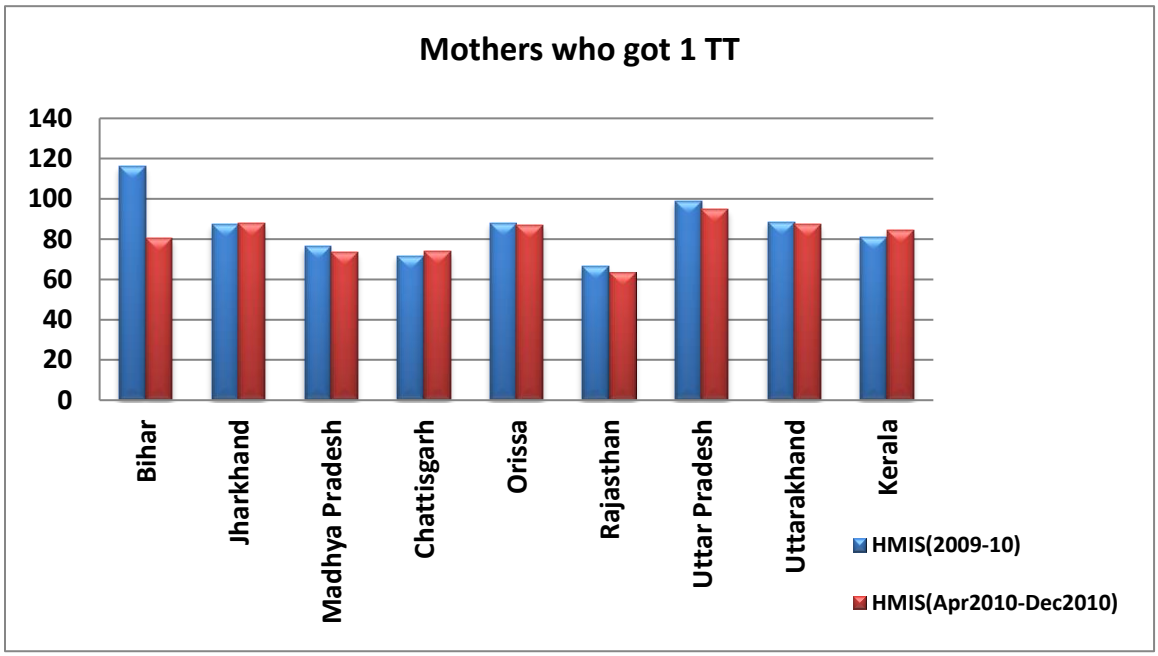


According to HMIS data, Orissa has the highest percentage of women availing 3 ANC facility but in the year 2010-11 the trend shows a decrease. Decrease in trend is also seen in Madhya Pradesh, Chattisgarh, Uttar Pradesh and Uttarakhand. Bihar has the lowest percentage of people availing 3 ANC facility which is 49.1 percent in the year 2010-11 a slight improvement from the previous year.

A.3 Mother who got 1 TT injection

Tetanus toxoid vaccines can prevent infections and save the lives of mothers and infants alike. Pregnant women should receive at least two doses of tetanus toxoid, which provide one to three years of protection

Fig 3: Mother who got at least 1 TT injection

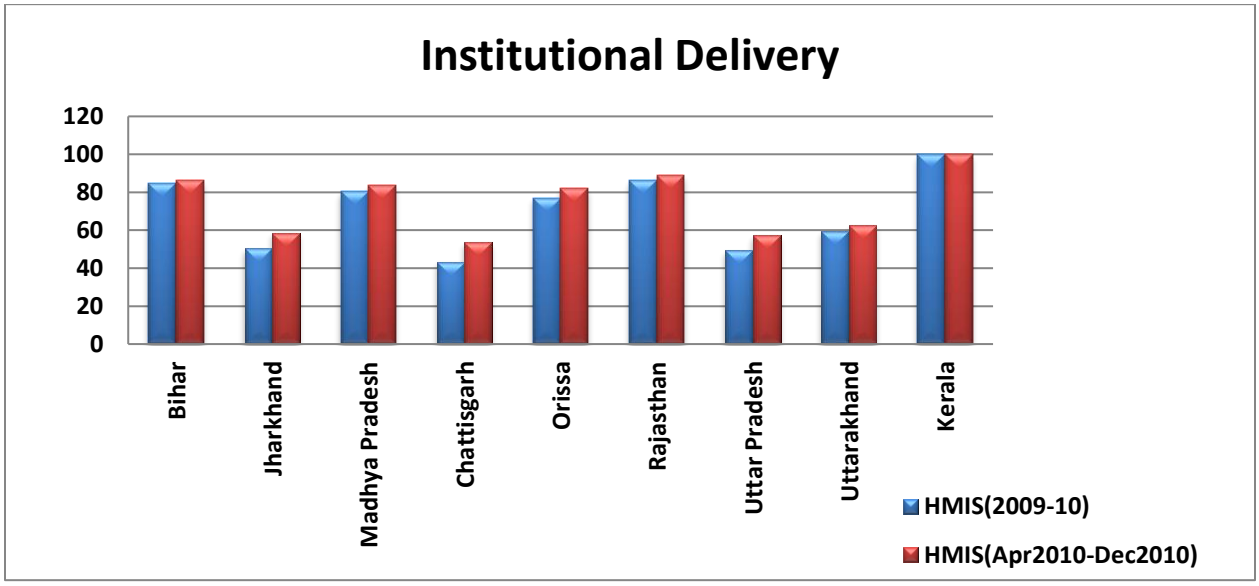


Bihar shows an unusual percentage of mothers who got atleast 1TT injection in the year 2009-10 of 116.3 percent which is the highest among the eight EAG states for that year. The quality of data needs to be checked. The lowest for the year 2009-10 is of Rajasthan at 66.4 percent. For the year 2010-11 Uttar Pradesh shows the highest at 94.8 percent which is less than the previous year. The lowest is of Rajasthan at 63.6 percent. The trend of Rajasthan also shows decrease in performance from previous year.

A.4. Institutional Delivery

Institutional delivery is a key RCH strategy. It is well established that giving birth in a medical institution under the care and supervision of trained health-care providers promotes child survival and reduces the risk of maternal mortality. Janani Suraksha Yojana has led to creation of enormous demand for institutional delivery.

Fig 4: Institutional Delivery

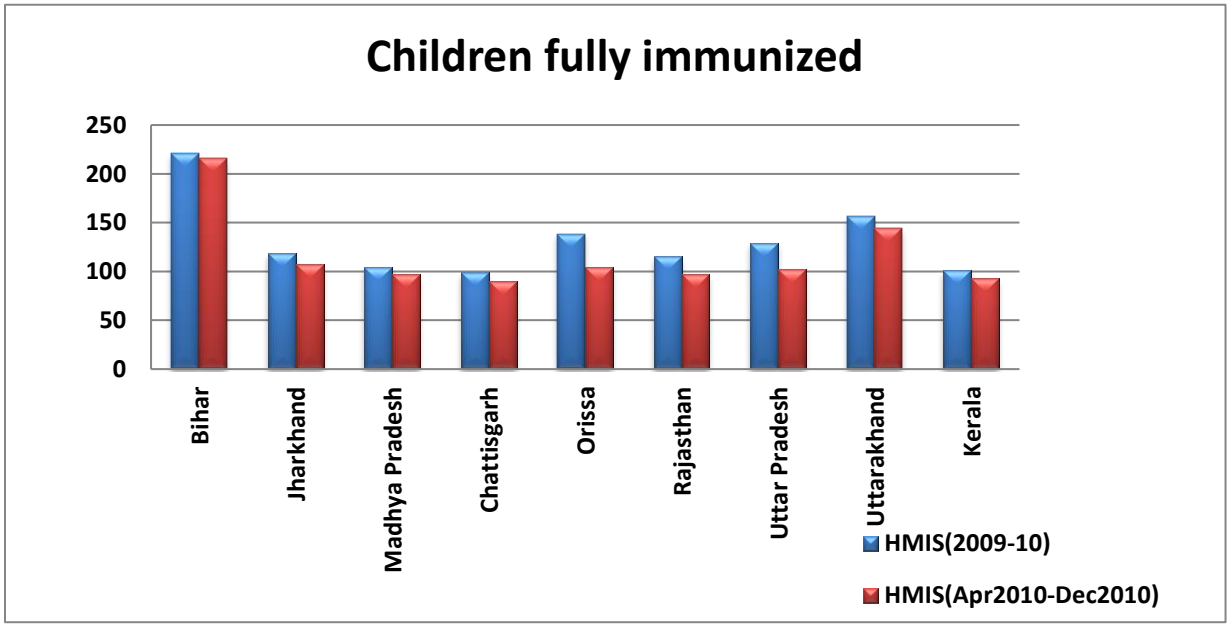


All the eight EAG states reports an increase in institutional delivery in the year 2010-11. For both the year Rajasthan reports the highest number of institutional delivery at 86.2 percent in 2009-10 and 88.8 percent in 2010-11. The lowest for both the year is reported by Chattisgarh with43.4 percent in 2009-10 and 53.7 percent in the year 2010-11. As compared with Kerala,

A.5. Children (12-23 months) fully immunized (BCG, 3 doses each of DPT, and Polio and Measles)

Immunization forms one of the most important and cost effective strategies for the prevention of childhood sicknesses and disabilities and is thus a basic need for all children. Immunizations are designed to protect against serious illnesses ranging from polio and tetanus to measles, mumps, and the seasonal flu.

Fig 5: Children (12-23 months) fully immunized (BCG, 3 doses each of DPT, and Polio and Measles)

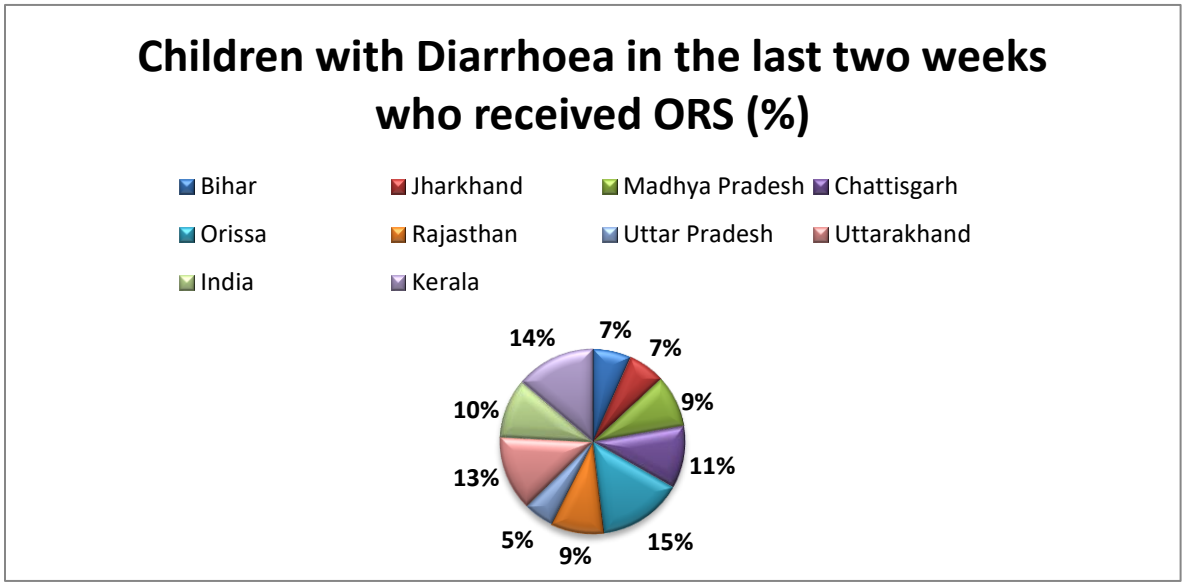


Bihar shows an uncharacteristic reported immunization of 220.7 percent in the year 2009-10 and 215.7 percent in 2010-11. Out of the other seven states six reports the immunization to be above 100 percent which can be possible in certain situations. Kerala's performance has decreased from its previous year. The data being entered at the data entry level needs to be checked.

A.6. Children with Diarrhoea in the last two weeks who received ORS (%)

Acute diarrhoea is a major cause of morbidity and mortality in infants and young children all over the world, more so in the developing countries. Encouragement of breast feeding, better food hygiene, improvement of nutritional status of children and good environmental sanitation are important strategies for lowering the incidence of diarrhoea. It is equally important to reduce the high rate of diarrhoeal deaths because of loss of fluid and electrolytes from the body. as well as malnutrition and its sequelae due to repeated attacks of acute diarrhoea.

Fig 6: Children with Diarrhoea in the last two weeks who received ORS (%)

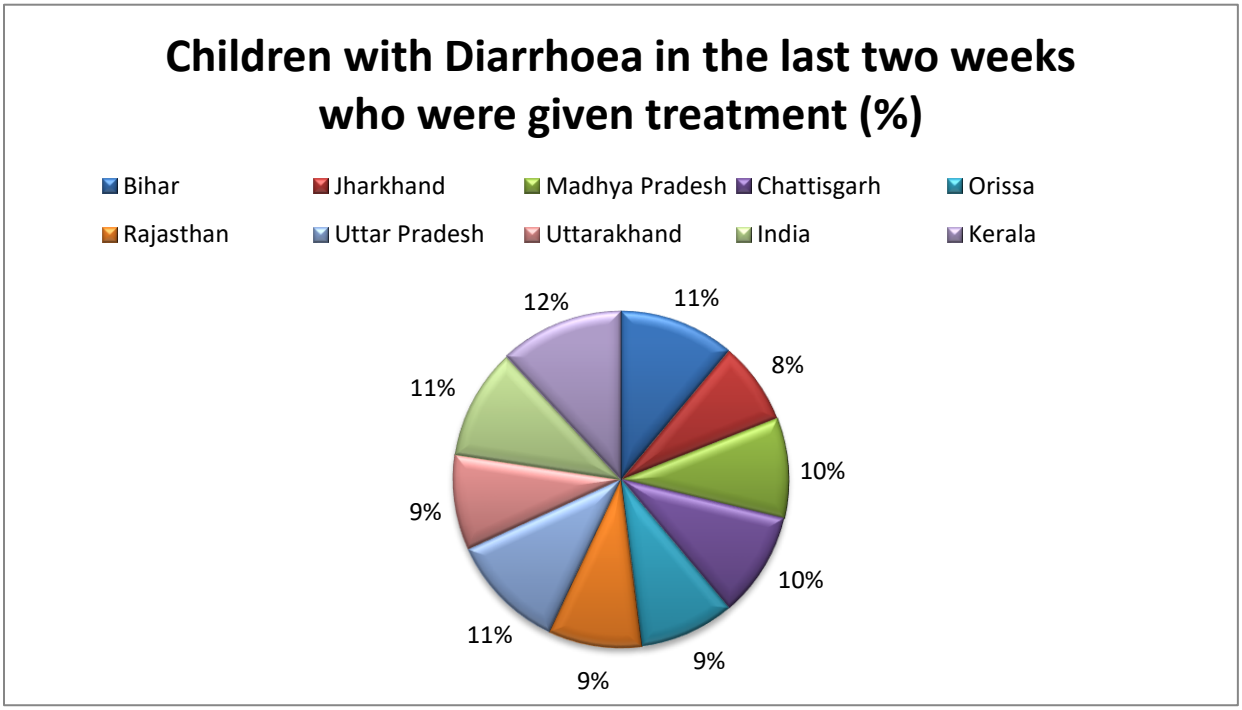


According to DLHS-III, the highest percentage is reported from Orissa and the lowest is in Uttar Pradesh.

A.7. **Children with Diarrhoea in the last two weeks who were given treatment (%)**

Diarrhoea is a common but potentially serious illness in early childhood. A child suffers, on an average, 10 to 15 episodes of diarrhoea in the first five years of life. Of these, three to five occur in the first year of life. Diarrhea has been shown to have significant impact on nutrition. Most field studies identify diarrhoea as the major determining factor leading to malnutrition in the developing countries.

Fig 7: Children with Diarrhoea in the last two weeks who were given treatment (%)

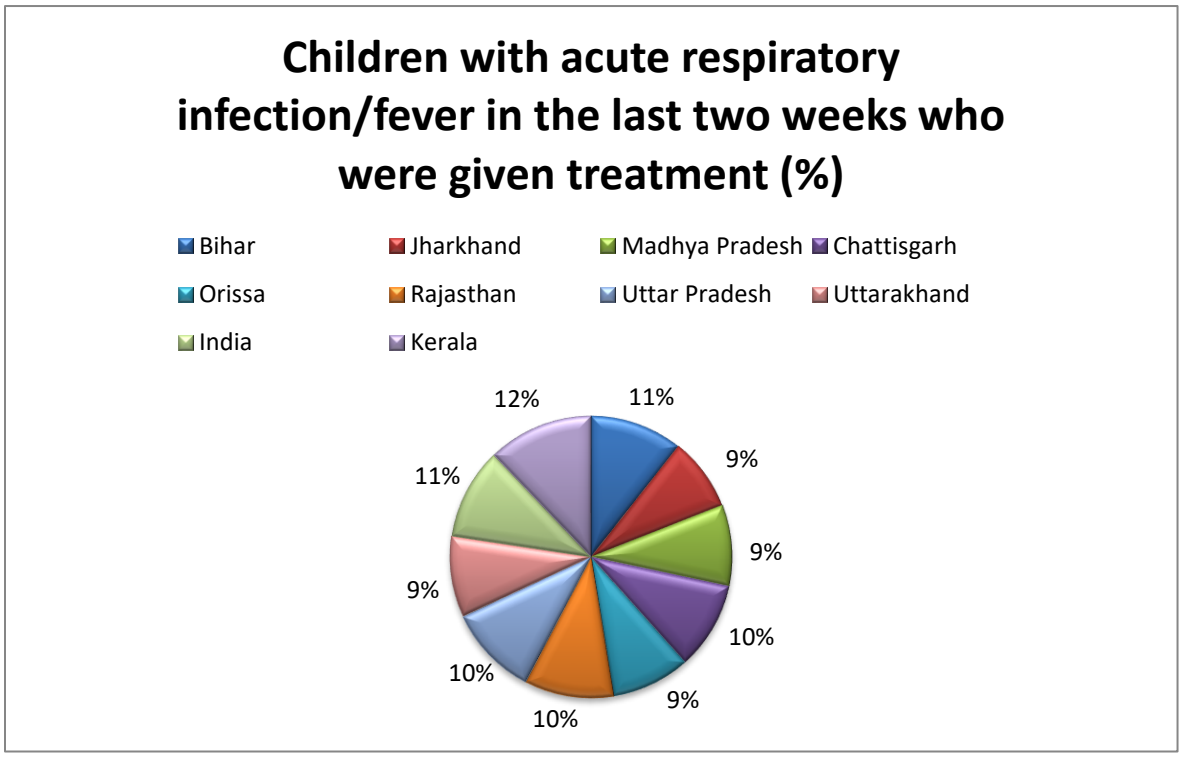


Bihar and Uttar Pradesh both reports the highest percentage of children with diarrhea in the last two weeks who were given treatment while the lowest is reported from Jharkhand.

A.8. Children with acute respiratory infection/fever in the last two weeks who were given treatment (%)

Acute respiratory infections (ARIs) are the most common causes of illness and death in children under five (except neonates), with pneumonia alone responsible for about one–fifth of the estimated 10.6 million deaths per year in young children.

Fig 8. Children with acute respiratory infection/fever in the last two weeks who were given treatment(%)



In DLHS-III, children with acute respiratory infection/fever in the last two weeks who were treated was highest in Bihar while the lowest was reported from Jharkhand.

Author's view: The authenticity of the data needs to be verified

2.7 Discussion

Due to the poor performance of these eight states, the government has grouped them into Empowered Action Group. The performance of the eight EAG states in maternal and child health indicators is not up to the national average. There are various social, cultural, economic, demographic factors which are responsible for the poor performance of these states. By grouping them into one group, special attention is given to them so that their performance improves and come at par with other high performing states.

According to DLHS-III data, highest percentage of girls getting married before age 18 is of Bihar at 45.9 percent. During DLHS-II survey also, Bihar showed the highest percentage of women getting married before age 18. Bihar is basically male dominated society where the decisions are taken either by elders of the households or by the male member. The women have no say in it. Also the economic power of the household is vested with the male members. The women have no decision power even about themselves but improvement has been seen in recent times. Uttarakhand shows the lowest percentage of girls getting married before age 18.

Antenatal care is the systemic medical supervision of women during pregnancy. Its aim is to preserve the physiological aspect of pregnancy and labour and to prevent or detect, as early as possible, all that is pathological. Early diagnosis during pregnancy can prevent maternal ill-health, injury, maternal mortality, foetal death, infant mortality and morbidity. Hence, the earlier in pregnancy a woman comes under the supervision of an obstetrician or health care provider, the better. During the first trimester various test can detect the pathological condition which can or may prove fatal for the mother or child or both. The timely detection helps in avoiding such situation. But due to lack of knowledge and awareness, many women do not understand the importance of early registration and fail to inform their local health care providers. Once the pregnancy enters the advance stage and is visible to others, the health care providers register them and only then their ante natal check up starts.

The primary objective of antenatal care is to establish contact with the women, and identify and manage current and potential risks and problems. Few life threatening complications can be prevented antenatally, most requiring interventions at the time of delivery. Regular

screening helps in reducing the maternal mortality and infant mortality. The minimum standard set for ANC is three visits to the doctor during the entire nine months of the pregnancy. As the pregnancy advances various risk factor also increases. But with regular monitoring of the pregnant women the risks can be avoided. Pregnancy is not a disease or infirmity which can be enjoyed with regular and timely visits are made to the doctor for check up.

Tetnus toxoids injection is very important during pregnancy. The data shows that the awareness about the importance of tetnus toxoid injection is in majority of the population, though availing of this facility by the pregnant women has decreased from the previous year.

Institutional Delivery is very essential to reduce maternal mortality and infant mortality. The government of India has launched Janani Suraksha Yojna(JSY) to promote institutional delivery. After the launch of the scheme there has been an increase in institutional delivery. Various schemes have also been launched by states to promote institutional delivery. According to NFHS-I report, 62 percent home delivery was reported and only 26 percent institutional delivery (public and private both). During NFHS-III, the percentage of institutional delivery rose to 40.8 percent. The percentage of institutional delivery for the year 2010-11 as reported by HMIS has rose to 61.5 percent. Among the eight EAG states, the highest percentage of institutional delivery is reported by Rajasthan at 88.8 percent and lowest from Uttar Pradesh 57.4 percent.

Immunization programme is one of the essential interventions for protection of children from life threatening diseases, which are avertable. The government is promoting immunization on a large scale. Large amount of funds are being channeled into immunization programmes. During DLHS-I, the percentage of children reporting complete immunization was 54.2 percent and 54 percent in DLHS-III. Gender bias has also been seen in immunization. The people are serious when it comes to immunizing a boy in comparison to a girl.

Diarrhoea is a very common reason for child mortality especially in developing countries. Every year a large number of children die each year from it around the world. Though this disease can be easily prevented, children suffer from the same because of parents unawareness of its prevention and control. Diarrheoea can be treated by giving ORS in the initial stage but in acute case proper treatment needs to done. According to one report released by United Nations and World Health Organisation, India accounted for highest number of death from diarrhoea in South Asia. Lack of awareness of the people about the its severity is the main cause for large scale death of children.

Acute Respiratory Infection is another cause of child mortality. Pneumonia is the most serious manifestation of ARI. Large number of deaths can be prevented by selective use of affordable antibiotics at proper time.In DLHS-II only 41.3 percent of women were aware about the danger signs of ARI which increased to 57.4 percent in DLHS-III.

The performance of Kerala according to the data that is entered in HMIS is low. Some state are showing an abnormal figure. The data being entered needs to be verified.

2.8 Conclusion

Reduction in maternal and child mortality has been a top priority in India, specially in light of the commitment on the part of the national government to the reach the millinum development goal. Despite massive program, efforts, availability needed to avert maternal deaths, the maternal mortality ratio and IMR in India continues to remain high.

Although special attention was given to EAG states but their performance still remains very low. The reasons need to be found and addressed. States like Orissa, Jharkhand and Madhya Pradesh have got tribal population who might have reservations about importance of . due to lack of awareness and education the health seeking behavior of the population is very low.

Geographic situation is also one of the barriers in accessing health services by the population. Due to distance people do not access the services until the last moment and by that time situation becomes out of hand even for the health providers. A silver lining is the introduction of 108 services which has led to an increase in institutional delivery.

Another barrier is the absence of proper infrastructure. Every year the population is increasing but the number of doctors remains same.

To reduce the maternal, infant and child mortality the government and the population have to work together to bridge the gap.

2.9 Recommendation

1. The healthcare structure needs to be decentralized.
2. Intersectoral coordination.
3. Proper communication about the services provided by the government.
4. Increasing the awareness of the population.
5. Improvement in infrastructure.

NRHM has unleashed a lot of positive synergies and the Ministry should make all the efforts to further deepen such processes of community health in a manner that every household is able to seek its entitlement to care. There is a need to develop a new paradigm of infrastructure strengthening, supporting referral transport services, entering in Public Private Partnership for the provision of ambulances at all facilities, public recruitment based on the learning of the last five years, and the most importantly NRHM is all about “Bringing people back to the Public System” and this has indeed increased the accessibility to the public health care delivery system in India.

2.10 Referrences

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2.11 ANNEXURES

Table 1: Mothers Registered in First Trimester

Mother Registered in first Trimester		
State	HMIS(2009-10)	HMIS(Apr2010-Dec2010)
Bihar	44.9	52.9
Jharkhand	26.4	27.1
Madhya Pradesh	48.1	48.1
Chattisgarh	43.2	52.1
Orissa	34.1	35.4
Rajasthan	50.3	45.3
Uttar Pradesh	59.7	58.0
Uttarakhand	51.4	54.6
Kerala	65.2	72.2

Table 2: Mothers who had 3 ANC Check up

Mother who had atleast 3 ANC checkup		
State	HMIS(2009-10)	HMIS(Apr2010-Dec2010)
Bihar	45.3	49.1
Jharkhand	62.0	62.8
Madhya Pradesh	79.5	78.0
Chattisgarh	83.2	80.4
Orissa	89.1	85.5
Rajasthan	66.4	66.7
Uttar Pradesh	77.2	74.8
Uttarakhand	75.2	72.6
Kerala	77.1	83.3

Table 3: Mothers who got at least 1 TT Injection

Mother who got atleast 1 TT injection		
State	HMIS(2009-10)	HMIS(Apr2010-Dec2010)
Bihar	116.3	80.6
Jharkhand	87.3	87.7
Madhya Pradesh	76.3	73.3
Chattisgarh	71.7	73.8
Orissa	88.1	87.0
Rajasthan	66.4	63.6
Uttar Pradesh	98.9	94.8
Uttarakhand	88.2	87.4
Kerala	81.1	84.6

Table 4: Institutional Deliveries

Institutional Deliveries		
State	HMIS(2009-10)	HMIS(Apr2010-Dec2010)
Bihar	84.7	86.3
Jharkhand	50.3	58.7
Madhya Pradesh	80.3	83.5
Chattisgarh	43.4	53.7
Orissa	77.1	82.1
Rajasthan	86.2	88.8
Uttar Pradesh	49.3	57.4
Uttarakhand	59.5	62.6
Kerala	99.7	99.8

Table 5: Children Fully Immunized

Children (12-23 months) fully immunized (BCG, 3 doses each of DPT, and Polio and Measles) (%)		
State	HMIS(2009-10)	HMIS(Apr2010-Dec2010)
Bihar	220.7	215.7
Jharkhand	118.4	107.7
Madhya Pradesh	104.8	96.8
Chattisgarh	98.7	89.7
Orissa	138.2	104.3
Rajasthan	115.4	96.9
Uttar Pradesh	129.1	102.4
Uttarakhand	156.3	144.3
Kerala	100.7	92.7

Table 6: Children with Diarrhoea in the last two weeks who received ORS (%)

States	Children with Diarrhoea in the last two weeks who received ORS (%)
Bihar	22
Jharkhand	21.4
Madhya Pradesh	30
Chattisgarh	36.3
Orissa	49
Rajasthan	30.6
Uttar Pradesh	17.4
Uttarakhand	43.6
India	34.2
Kerala	45.6

Table 7: Children with Diarrhoea in the last two weeks who were given treatment (%)

States	Children with Diarrhoea in the last two weeks who were given treatment (%)
Bihar	73.6
Jharkhand	52.2
Madhya Pradesh	64
Chattisgarh	66.9
Orissa	60.4
Rajasthan	59.6
Uttar Pradesh	73.8
Uttarakhand	60.8
India	70.6
Kerala	78.8

Table 8: Children with acute respiratory infection/fever in the last two weeks who were given treatment (%)

States	Children with acute respiratory infection/fever in the last two weeks who were given treatment (%)
Bihar	78.8
Jharkhand	62.1
Madhya Pradesh	68.4
Chattisgarh	74.4
Orissa	66.8
Rajasthan	75.7
Uttar Pradesh	76.6
Uttarakhand	69
India	77.4
Kerala	89.8