Gap Analysis of Special New Born Care Unit

By

Manu Dewangan

Dissertation submitted for the partial fulfillment of the

MBA Pharmaceutical Management

Academic year, 2016-2018

The IIHMR University, Jaipur

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

IIHMR UNIVERSITY

TO WHOMSOEVERMAY CONCERN

This is to certify that Mr. Manu Dewangan student of MBA Pharmaceutical Management from The IIHMR University, Jaipur has undergone internship training at IIHMR University Jaipur, Med Hub-Gurgaon, National Health Mission-Madhya Pradesh from 7th Feb 2018 to 20th May 2018.

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 fulfillment of the course requirements.

I wish him all success in all his future endeavors.

Dr. Ashok Kaushik

Dean, Academics and Student Affairs
The IIHMR University, Jaipur

Dr. Sandeep Narula

Associate Professor
The IIHMR University, Jaipur

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MedHub
Inspiring Purposeful Partnerships

EXPERIENCE CERTIFICATE

TO WHOMESOEVER IT MAY CONCERN

Date : 09-04-2018

This is to certify that MR. Manu Dewangan was associated with our company Medhub from 05 March 2018 to 09 April 2018 as an Assistance Manager- Supply Chain & Logistics.

His exposure in these area is very good. He bears good character, He is honest & hard working, and Organization does not have any dues towards him. During his tenure with us, he handled all his responsibilities and found him to be hardworking and productive.

We confirm all Information is true as per our record.

We wish him a successful & smooth life.

Yours sincerely,

For Medhub

Ritika

(HR Manager)

MedHub GURGAON

(Senior Director)

National Health Mission

08, Arera Hills,
Bhopal

The Certificate Is Awarded To

Manu Dewangan

In Recognition of Having Successfully Completed Her
Internship in The Department
of

Child Health Branch

And Has Successfully Completed Her Project

On

Gap Analysis Of SNCU

Under The Guidance Of

Dr. Manish Singh

(Dupety Director Child Health)

NHM, Bhopal

Internship :- (5th April – 20th May)

NATIONAL HEALTH MISSION

Madhya Pradesh

He comes across as a committed, sincere & diligent person who has a strong
Drive And Zeal For Learning

We wish him all the best for future endeavors

Dr. Durgesh Gour
DD/HR, NHM, Bhopal
उप संचालक (मानव संसाधन)
राष्ट्रीय स्वास्थ्य मिशन
मध्यप्रदेश

(Dr. Brajesh Saxena)
Chief Administrative Officer
NHM,Bhopal
मुख्य प्रशासकीय अधिकारी
राष्ट्रीय स्वास्थ्य मिशन

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "**Gap Analysis Of Special New Born Care Unit" ,Madhya Pradesh**and submitted by **Mr.Manu Dewangan** Enrollment No**0071** under the supervision of **Dr. Sandeep Narula** for award of MBA inPharmaceutical Management The IIHMR University carried out during the period from**7th Feb to20th may** 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.

Signature

TABLE OF CONTENT

PREFACE

Any knowledge is incomplete without first-hand experience about it. In the health sector especially getting in to rub of the things is extremely essential as its problems are complex and deep rooted. To manage the problems in the health sector 'MBA student of pharmaceutical management 'need to know the functioning of the different organizations be it private or public, for this purpose Dissertation of 3 months is scheduled enclosed to 2nd year.

For the purpose of Dissertation, I am thankful that I got opportunity to work under NHM Madhya Pradesh as I thought I would get to know the functioning of various government schemes in state of Madhya Pradesh

In the NHM Madhya Pradesh complete discretion was given to us for opting of program of our choice to study upon and I opted for the child health with special focus on working of SNCU under the program

Acknowledgment

The project was a success due to the help and support of many peoples. I would like to acknowledge the help of all people who contributed towards the completion of our project.

First of all, I would like to thank **MD of NHM Madhya Pradesh Dr. Viswanathan** for providing me opportunity to work in public health system.

I also like to thank **Dr. Manish Singh (Deputy Director of Child Health), Dr. Sarita Verma (state SNCU manger)** for guiding me to proceed with the project.

Without the guidance and blessing of **Dr. S.D Gupta, Director Indian Institute of Health Management &Research University** Jaipur would not have been possible for us.

My special thanks to **col**. **Dr. Ashok Kaushik, Dean Academics and students Affairs, IIHMR University, Jaipur** for being a continuous guiding source throughout the degree, I would also like to thanks Dr. **Sandeep Narula** Sir, IIHMR University, my mentor for providing me a support in making my project a successfully.

I would like to express gratitude and appreciation for all the people mentioned above to help us complete our study and make our project successful.

ACRONYMS

S. No.	ACRONYMS	FULL FORM
1.	MMR	Maternal mortality ratio
2.	ANM	Auxiliary nurse midwife
3.	ASHA	Accredited social health activist
4.	IMR	Infant mortality rate
5.	PHC	Primary health centre
6.	CHC	Community health centre
7.	NMR	Neonatal mortality rate
8.	NBCC	Newborn care corner
9.	NBSU	Newborn Stabilization unit
10.	SNCU	Special newborn care unit
11.	MDR	Maternal death review
12.	BMNO	Block medical nodal officer
13.	Hb	Hemoglobin
14.	AIDS	Acquired immune deficiency syndrome
15.	IFA	Iron folic acid
16	ABG	Acid Blood Gas Analysis
17	BMW	Bio- Medical Waste
18	CBC	Complete Blood Count
19	CME	Continued Medical Education
20	CPAP	Continuous positive Airway Pressure
21	DCH	Diploma in Child Health
22	DM	Doctorate in Medicine
23	DR- CPAP	Delivery room continuous Positive Airway pressure
24	EBM	Expressed breast milk
25	FBNC	Facility Based Newborn Care
26	GNM	General nursing and Midwifery
27	KMC	Kangaroo Mother Care
28	LBW	Low Birth Weight
29	NRP	Neonatal Resuscitation Protocol

30	PICC	Peripherally Inserted Central Catheter
31	ROP	Retinopathy of Prematurity
32	VAP	Ventilator associated Pneumonia
33	VLBW	Very Low Birth Weight
34	PDCH	Project director Child health

Purpose of Dissertation

Dissertation is associate integral part of the MBA course of study. As a vicinity of the course, students of Second year area unit needed to bear at any supposed organization to induce thorough exposure of assorted departments within the organization and higher understanding of the health supply system and its functions.

The major objectives of the summer educational program area unit as follows:

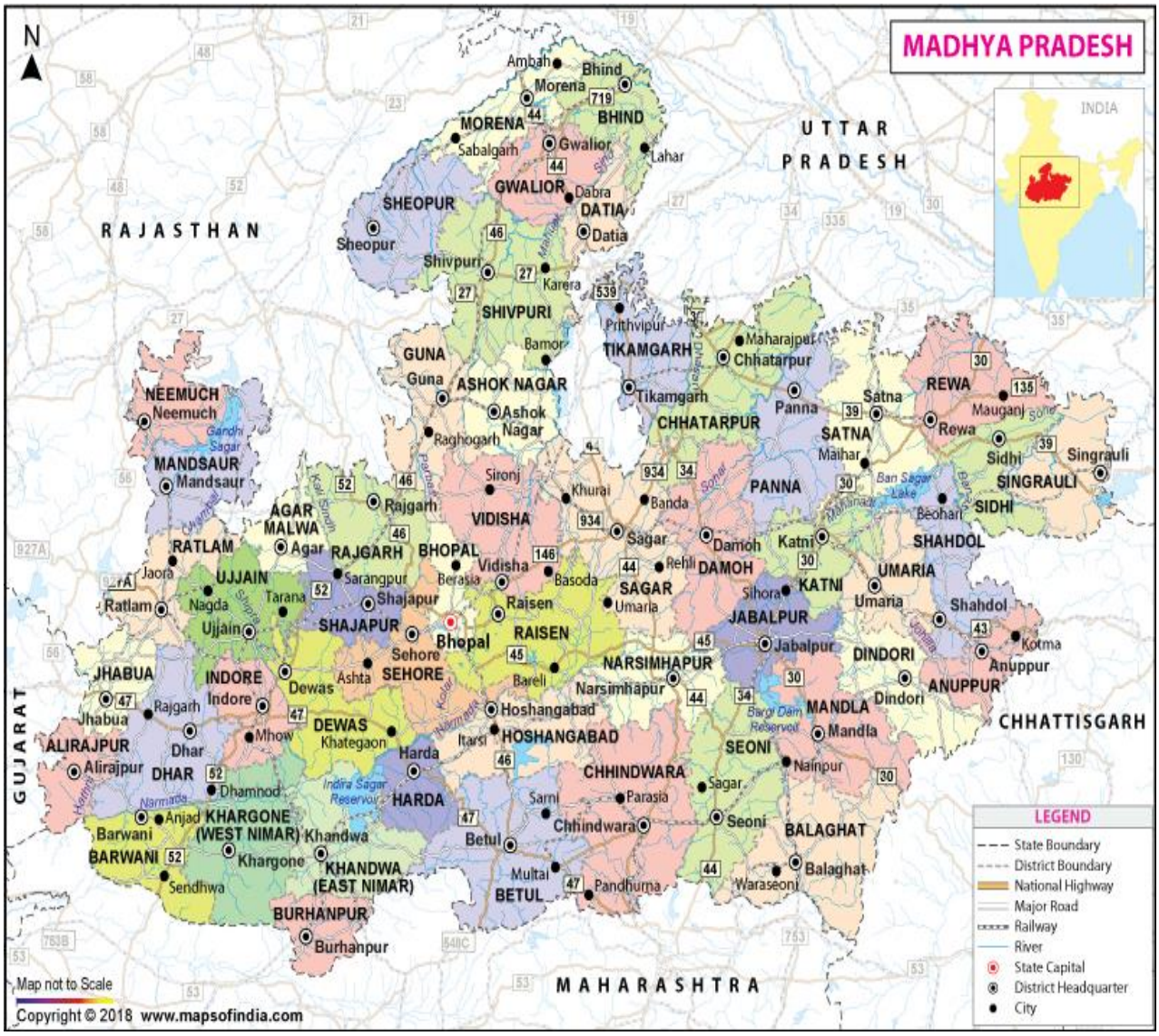
• To higher perceive the present health delivery system together with public and personal sectors.
• To observe the implementation of assorted national health elements at national/state/district levels.
• To perceive varied functions of health system by interactions with key stakeholders, policy manufacturers, program managers, academicians and researchers.

• To work on the project/task assigned by summer coaching organization.

"During our coaching amount we tend to had an summary of assorted elements undertaken in National Health Mission, Madhya Pradesh together with the standing of the elements and our observations relating to a similar. we tend to conjointly distributed tiny low study on the various topics assigned to us.

ABOUT AREA OF STUDY

Madhya Pradesh Map



ABOUT MADHYA PRADESH:-

AREA- 308,252 SQUARE KM

AREA RANK- 2

POPULATION- 7.27 Crores)CENSUS 2011(

POPULATION RANK- 5th

CAPITAL- Bhopal

LARGEST CITY- Indore

DISTRICT-51

GOVERNMENT

GOVERNOR- Anandiben patel

CHIEF MINISTER- Shivraj Singh Chouhan)BJP(

HEALTH MINISTER- Shri Rustam Singh

LEGISLATURE-UNICAMERAL)230 SEATS(

PARLIMENTARY CONSTITUENCY-25

HIGH COURT- Madhya Pradesh High Court

COMPARISON BETWEEN MADHYA PRADESH AND INDIA

Indicators	Year	Unit	Madhya Pradesh	India
Geographical Area	2011	Lakh Sq. Km.	3.08	32.87
Population	2011	Crore	7.27	121.09
Decadal Growth Rate	2001-2011	Percentage	20.35	17.7
Population Density	2011	Population Per Sq. Km	200	382
Urban population to total Population	2011	Percentage	27.63	31.1
Sex Ratio	2011	Female Per 1,000 Male	931	943
Child Sex Ratio)0-6 Year(	2011	Female Children Per 1,000 Male children	918	919
Literacy Rate	2011	Percentage	69.32	73.0
Birth Rate	2015*	Per 1,000 Population	25.5	20.8
Death Rate	2015*	Per 1,000 Population	7.5	6.5
Infant Mortality Rate	2015*	Per 1,000 Live Birth	50	37
Maternal Mortality Ratio	2011-13**	Per Lakh Live Birth	221	167
Life Expectancy at Birth	2010-14*	Year	64.2	67.9

*SRS bulletin: Office of Registrar General of India

**NITI AAYOG

From comparison of these above data it shows that on health indicator Madhya Pradesh is coming under the bottom of all indicators. Bihar, Jharkhand, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Odisha, Rajasthan (previously known as BIMARU State)

Source-Economic Review 2016-17of Madhya Pradesh.

ABOUT NATIONAL HEALTH MISSION

INTRODUCTION

The NHM (National Health Mission) that is split in to National Rural Health Mission (NRHM) & National Urban Health Mission(NUHM) effort at guaranteeing effective attention through a spread of interventions at individual, household, community, and most critically at the health system levels. Despite wide gains in health standing over the past few decades in terms of inflated expectancy, reductions in mortality and morbidity serious challenges still stay. These challenges vary considerably from state to state and even inside states."

There has been a progressive decline in fund allocation for public health within the country from 1.3% of value in 1990 to 0.9% in 1999. Rising inequities square measure another space of concern. Studies demonstrate that curative services favor the wealthy over the poor. only 1 tenth of the population is roofed by any kind of insurance thereby exposing the big majority to the danger of obligation within the event of a significant ill health within the family. Operational integration in policy and program between numerous vertical programs at intervals the health sector, and between health and alternative connected sectors like drinkable, sanitation, and nutrition has been restricted, leading to an absence of holistic approaches to health. variety of States notably in North, East and North jap components of the country have stagnant health indicators and still grapple with important morbidity and mortality. The causes for this primarily belong socio-economic factors, underperforming health systems and weak institutional framework

The computer programmer spells out the commitment of the govt. to reinforce fund Outlays for Public Health and to enhance the capability of the health system therefore AK up} the enlarged outlay so on bring all spherical improvement publicly health services. This Mission seeks to supply effective health care to the agricultural population, particularlythe underprivileged teams together with ladies and kids, by up access, facultative community possession and demand for services, strengthening public health systems for economical service delivery, enhancing equity and responsible ness and promoting decentralization.

The goals of NHM are outlined below:-

- Reduction in Infant Mortality Rate and Maternal Mortality Ratio by at least 50% from existing levels in next seven years
- Universalize access to public health services for Women's health, Child health, water, hygiene, sanitation and nutrition
- Prevention and control of communicable and non-communicable diseases, including locally endemic diseases
- Access to integrated comprehensive primary healthcare
- Ensuring population stabilization, gender and demographic balance.
- Revitalize local health traditions and mainstream AYUSH
- Promotion of healthy life styles.

PROGRAMMES OF NHM MADHYA PRADESH

1.Reproductive & Child Health)RCH-II(:

- State's RCH programme is working to achieve goal of reducing infant & maternal morbidity & mortality.
- Achievement of these goal is envisioned through
  - Quality Improvement
  - Enhancement in accessibility & availability & coverage of reproductive & child health services.

2.Immunization:

Immunization is vital for health of child hence it is important strategy under NHM. Immunization coverage in the state is found to be unsatisfactory.

3.Disease Control Programmes:

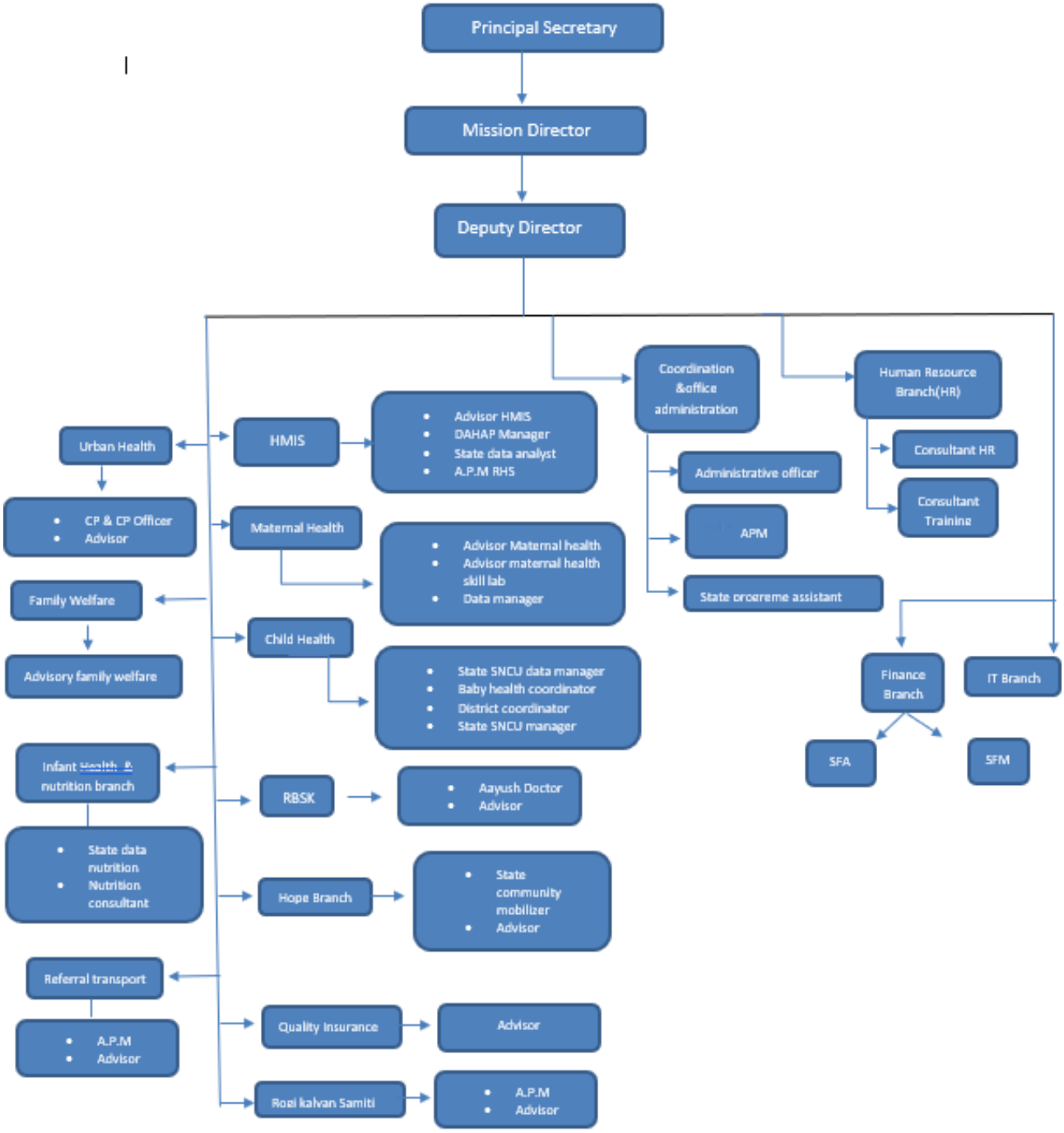
- National Vector Born Disease Control Program
- National Leprosy Eradication Program
- Integrated Disease Surveillance Program
- Revised National Tuberculosis Control Program
- National Blindness Control Program

4. Accredited Social Health activists:

- Asha Sahayogini
- Asha Soft

5. Janani Suraksha Yojana)JSY(

6. Janani shishu Suraksha karykram)JSSK(



Organogram of NHM Madhya Pradesh

Special New Born Care Unit

INTRODUCTION- SNCU

In India, twenty-six Million babies are born once a year and 940,000 babies die before one month of life, Bharat carries the only largest share around 25-30 you look after baby deaths within the world. The time of life is simply twenty-eight days; however, neonatal mortality rate Rate (NMR) contributes to regarding two- thirds of death rate Rate (IMR) and regarding half under-5 rate(U5MR).

There is a growing recognition that to satisfy national goals and also the millennium Development Goals (MDGs) to bring down childhood mortality, a considerable reduction in magnetic resonance is required, and reducing deaths within the 1st week of life is crucial to create progress. the govt of India is committed to boost the supply of quality newborn care services additionally to revitalizing efforts in providing quality health look after ladies, infants and young kids beneath the National Health Mission (NHM) and its fruitful and kid Health Program.

Preventable morbidities like physiological state, asphyxia, infections, immaturity and metabolism distress still be the most causes of mortality within the time of life. there's associate increasing got to concentrate on newborn care and survival for important reduction in IMR and U5MR and strengthen the care of sick, premature, low birth weight newborns at the assorted levels of facilities right from the instant to birth through the time of life.

One of the key steps during this direction is that the institution of Facility primarily based New Born Care (FBNC) services at varied levels of health care facilities. FBNC incorporates a vital potential for rising newborn survival and cut back mortality rate by the maximum amount as 25-30 nothing.

Neonatal care at different levels under FBNC Program

Three levels of neonatal care under the FBNC program are as following:

Level 1- care includes referral of sick newborns from Primary Health Centre's (PHCs) to higher centre's and care at Newborn Stabilization Units (NBSU) within the initial referral units. Care within the NBSU includes Stabilization of sick newborns and care of low- birth Weight (LBW) babies not requiring medical care.

Level2- Care includes functioning of Special Newborn Care Units (SNCUs) at the district hospital and a few of the sub district hospital level. These units square measure being established at any health center wherever the delivery load is quite 3000 each year and square measure equipped to handle sick newborns apart from people who want ventilator support and surgical care. it's been calculable that around 15-20 you look after all newborns need level a pair of care in rural settings.

Level 3- units square measure the babe medical care units (NICUs) which offer all care together with motor-assisted ventilation and operation. Under this initiative, MOHFW established Special Newborn care Unit (SNCU) in 2009-10 focusing on comprehensive care to a sick newborn.

Special Newborn Care Unit (SNCU)

SNCU may be a baby unit within the neighborhood of the labor area that provides level 2/3 care (all care except assisted ventilation and operation) for sick newborns. All district hospitals and sub – district hospitals with over 3000 deliveries each year ought to have a SNCU.

Services to be provided at SNCU

Table 1 : Expected services to be provided at SNCU

Care at birth	normal Care of infant	Care of sick newborn
• Prevention of Infection • Provision of warmth • Resuscitation • Early initiation of Breastfeeding • Weighing the newborn	• Breast – feeding / Feeding support	• Managing of LBW babies under 1800 gm • Managing all sick newborns (except those requiring mechanical ventilation and major surgical interventions) • Post Natal Care • Follow-up of high-risk newborns • Immunization services and referral services

***(Source: facility based newborn care operational Guidelines 2011)**

Components of SNCU

Inborn Care Area-

all babies that are delivered in hospitals itself are kept inside these room. It is mandatory to separate inborn area with other areas.

Out born Care Area-

All babies that are referred in by level I hospitals (FRU- first referral Unit) are kept here for proper care.

Step- down unit:-All neonates who do not need intensive monitoring care are kept here. Some hospitals have provision to stay their mother along with babies having additional beds for their mother.

Triage area:

It belongs to area where the priority of patients are set, i.e the babies have to shift in inborn care or step down area.

Newborn ward:-

This is a further 10- twenty five beds, wherever each mother and also the newborn rest. This facility is to be used for neonates agency need least support like for radiation, for uncomplicated LBW babies requiring solely observation and people babies agency need solely blood vessel antibiotic medical care.

Ancillary area:

Distinct support area ought to be provided for all different services that square measure habitually performed within the SNCU.

The accessory space ought to include area for the following:

- Nursing work station, hand washing and gowning area at the entrance
- Side laboratory room
- Follow-up clinic
- Examination area
- Clean area for mixing intravenous fluids and medications

- Store room and power room
- Teaching and training room
- Place for in- house facility for washing, drying, boiling and autoclaving
- Duty room for doctors and nurses
- Place for promotion of breast- feeding and learning mother craft etc

Human resources for Special Newborn Care Unit

A twelve bedded unit (plus four beds for the step- down area) needs a minimum of one pediatrician or four trained MBBS doctors. it's purposed that one pediatrician trained in pediatrics ought to be denote at the unit, supported by 2 or 3 medics trained in FBNC. There ought to be 3 nurses in every shift, around the clock and adequate nurses recruited to produce for leave vacancy and contingency.
Dedicated support workers ought to be accessible to scrub the unit a minimum of once throughout each shift and additional typically looking on the necessity. A part- time research lab technician, a counselor, and a knowledge entry operator ought toeven be denote at the unit

Criteria for admission to SNCU:

Any newborn with following criteria should be immediately admitted to the SNCU:

- Birth weight <1800gm
- Large baby (>4.0kg)
- Perinatal asphyxia
- Apnea or gasping
- Refusal to feed
- Respiratory distress (Rate >60 or grunt/retractions)
- Severe jaundice (Appears <24 hrs/stains palms and soles/lasts >2 weeks)
- Hypothermia <35.4 degree C or hyperthermia (>37.5 degree C)
- Central cyanosis
- Shock (Cold periphery with CFT>3 seconds and weak & fast pulse)
- Coma, convulsions or encephalopathy
- Abdominal Distension

- Diarrhea / Dysentery
- Bleeding
- Major malformations

Criteria for discharge from SNCU:

- Baby is able to maintain temperature without radiant warmer
- Baby is hemodynamically stable (normal CFT, strong peripheral pulses)
- Baby accepting breast feeds well
- Baby has documented weight gain for 3 consecutive days, and the weight is more than 1.5 kg
- Primary illness has resolved

Training of SNCU staff on newborn care:

To ensure that the staff has the necessary skill to provide the appropriate level of care the medical and paramedical staff posted at SNCU need to undergo

Navjaat Shishu Suraksha Karyakram (NSSK)

NSSK address important interventions of care at birth, that is basic newborn resuscitation, prevention of hypothermia, prevention of infection, early initiation feeding, and equips the staff with 2 days knowledge and skill based training to provide essential newborn care in primary health care settings.

Facility based IMNCI (F-IMNCI) training:

F-IMNCI is skill based training, based on a participatory approach combining classroom sessions with hands- on clinical sessions. Medical officers and nurses not trained in IMNCI and working at health facilities should receive the full package of training with 11 days duration of training and 5 days for those already trained in IMNCI.

Facility based newborn care (FBNC) training:

All doctors and nurses posted in SNCUs need to undergo a more intensive training programme at a recognized centre. The training programme includes 4 days skill- based training on essential and special care. Besides skills on clinical management, additional training is provided on housekeeping and maintenance of the equipment.

Equipments for SNCU

- **Radiant warmers**
- **Incubators**
- **Transport incubator**
- **Pulse oximeter**
- **Apnea monitor**
- **BP monitor**
- **Thermometer**
- **Weighing scale**
- **Transcutaneous Bilirubin meter**
- **Blood gas monitor**
- **Phototherapy unit**
- **Infusion pump**
- **Oxygen analyzer**
- **Flux meter**
- **CPAP machine**
- **Neonatal Ventilator**
- **Suction machine**
- **Breast pump**
- **Manual resuscitator**

RATIONALE OF STUDY

There is an increasing have to be compelled to target newborn care and survival for vital reduction in IMR and U5MR and strengthen the care of sick, premature, low birth weight newborns at the varied levels of facilities right from the instant to birth through the time of life. Hence, the necessity has emerged to judge the functioning of SNCUs in terms of utilization, performance on the premise of geographical and ecological factors, treatment outcome, socio-demographic and clinical factors, and practicality, accessibility and adequacy of the facilities at SNCU.

As identifying the gaps, it helps in the decision-making process and the corrective actions can be taken immediately.

• SNCUs area unit expected to play a key role in saving newborn lives. large investment needed, thus it becomes essential to observe their functioning and affectivity.
• New RCH initiatives like JSY, JSSK area unit gaining ground and thence SNCU network got to be well-strengthened

The Government of India (GOI) is committed to boost the supply of quality newborn care services additionally to reviving efforts in providing quality health look after girls, infants and young kids below the National Rural Health Mission (NRHM) and its generative and kid Health Programs (RCH II).

REVIEW OF LITRETURE: -

1-Operational guide on FBNC has been developed to facilitate designing, institution, operationalization and observation of newborn care facilities at varied levels of public health facilities. the rules given here can assist programs managers and repair suppliers at national, state and district level in designing and delivering FBNC. the primary section of the guide focuses on specifications and processes associated with institution of recent facilities, whereas the second section provides technical steerage (key clinical protocols) to service suppliers operating in newborn care facilities for managing sick newborns. the rules are place along supported recommendations of associate skilled cluster that was found out by the Gal and enclosed specialists from medical schools, skilled bodies- National pediatrics Forum (NNF)and Indian Academy of medicine (IAP), and from UNICEF, WHO, USAID and NIPI.
The operational guide includes info on varied aspects that require to be self-addressed for guaranteeing quality newborn care services and is organized in 2 sections.
SectionI: putting in, cost accounting and operational steps
SectionII: Key clinical protocols and alternative technical documents

2- Every year, four million newborn babies die within the initial month of life—99% in low and middle-income countries. Asian nation carries the one largest share (around 25-30%) of babe deaths within the world. babe deaths represent common fraction of babydeaths in India; forty fifth of the deaths occur at intervals the primary 2 days of life.
It has been calculable that regarding seventieth of babe deaths can be prevented if proved interventions area unit enforced effectively with high coverage. it had been more calculable that health facility-based interventions will cut back death rate by 23-50% in numerous settings. Facility-based newborn care, thus, features a important potential for rising the survival of newborns in Asian nation.
Three levels of babe care area unit envisaged. Newborn-care corners area unit established at each level to produce essential care at birth, as well as revival.

Level I care includes referral of sick newborns from Primary Health Centers (PHCs) to higher centers and care at babe Stabilization Units (NSUs) within the initial referral units. Care within the NSUs includes stabilization of sick newborns and care of low-birthweight (LBW) babies not requiring medical aid.

Level II care includes functioning of Special Care Newborn Units (SCNUs) at the district hospital level. These unit's area unit equipped to handle sick newborns apart from those that would like improvement support and surgical care. the amount III unit's area unit the babe medical aid units.

3- Neonatal units in teaching and non-teaching hospitals both in public and private hospitals have been increasing in number in the country since the sixties. In 1994, a District Newborn Care Program was introduced as a part of the Child Survival and Safe Motherhood Program (CSSM) in 26 districts. Inpatient care of small and sick newborns in the public health system got a boost under National Rural Health Mission with the launch of the national program on facility-based newborn care (FBNC). This has led to a nationwide creation of Newborn Care Corners (NBCC) at every point of child birth, newborn stabilization units (NBSUs) at First Referral Units (FRUs) and special newborn care units (SNCUs) at district hospitals. Guidelines and toolkits for standardized infrastructure, human resources and services at each level have been developed and a system of reporting data on FBNC created. Till March 2015, there were 565 SNCUs, 1904 NBSUs and 14 163 NBCCs operating in the country. There has been considerable progress in operationalizing SNCUs at the district hospitals; however, establishing a network of SNCUs, NBSUs and NBCCs as a composite functional unit of newborn care continuum at the district level has lagged behind. NBSUs, the first point of referral for the sick newborn, have not received the desired attention and have remained a weak link in most districts. Other challenges include shortage of physicians, and hospital beds and absence of mechanisms for timely repair of equipment.

4- Neonatal death accounts for concerning seventy fifth of sudden infant death syndrome in our country and forty first of all international deaths among kids below five years. neonatal mortality rate rate in India is high and stagnant. In India beneath the umbrella of NRHM immediate care is given to the newborn at health facilities through Newborn Care Corner (NBCC) and Newborn Stabilization Unit (NBSU) for all newborns in Peripheral Health Centre. In recent past, Special Care Newborn Units (SCNUs) are established at each district tertiary care hospitals. Despite of these measures Cluster of baby deaths inside hours or each day at SNCUs of medical faculties across the country in recent past created hue and cry among political, social and health arena.2-4 The origination of NBCC, NBSU and SNCU as an {area a district a regional locality a vicinity a section} of strategy of baby survival has been initiated in recent past and thus operation analysis during this arena are terribly less until date. seeable of the importance of SNCU in reducing baby deaths and up to date clusters of death in these units it's imperative to search out out missing links from the community level to the medical tier of care.

PRIMARY OBJECTIVES:

"To assess the status of Special Newborn Care Units (SNCU) in Madhya Pradesh state according to FBNC accreditation tool"

SECONADRY OBJECTIVE-

- To access the availability of human resources against sanctioned post by FBNC guidelines
- To access the availability of functional equipment and instruments for qualitative services to new borns

RESEARCH METHODOLOGY-

Study area- Special Newborn Care Unit of Madhya Pradesh

Study Design - Cross-sectional study

Study Sampling- Convenience sampling

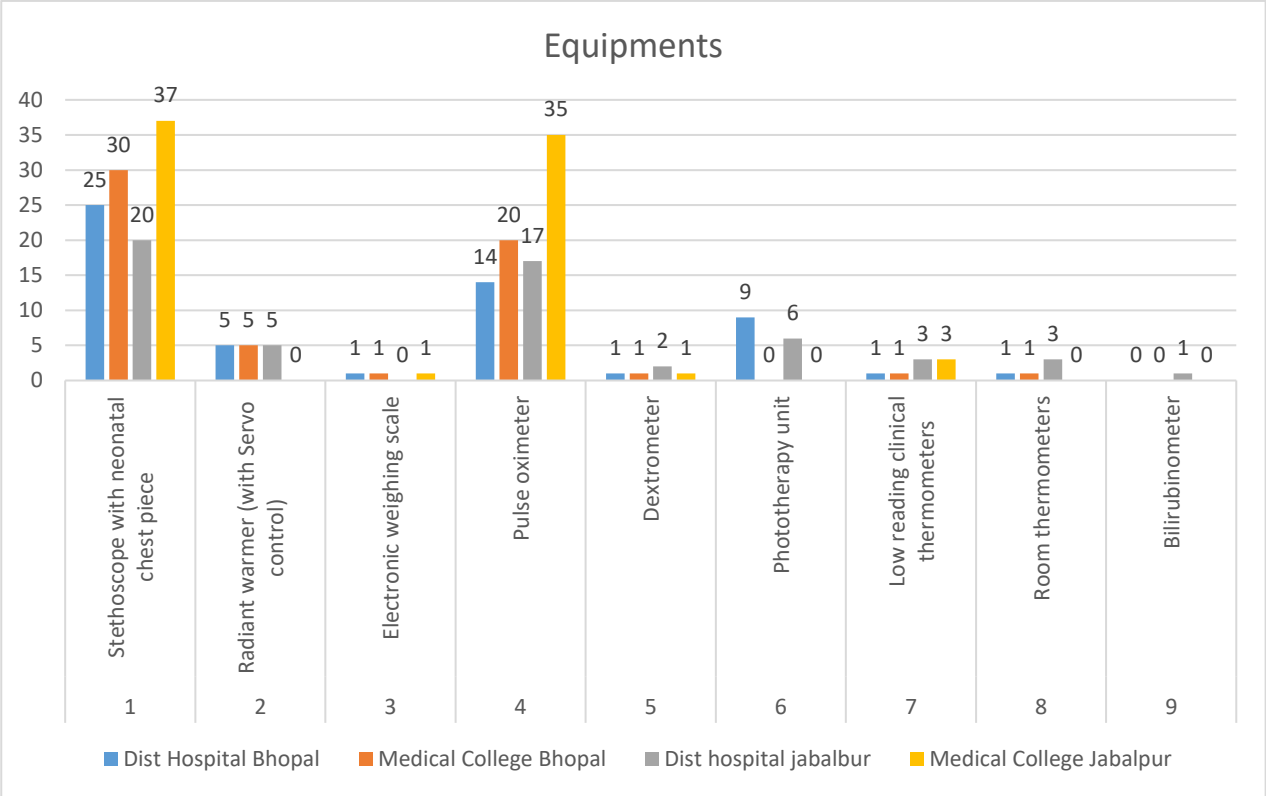
Sample Size – 4 hospitals from Bhopal and Jabalpur

Study Tool – A pre-designed, pre-tested structured FBNC Accreditation Tool questionnaire

Data Collection Technique- Primary data are collected with help of questionnaire, analysis is done with MS- Excel.

FINDINGS & ANALYSIS

Equipment Gap Status-

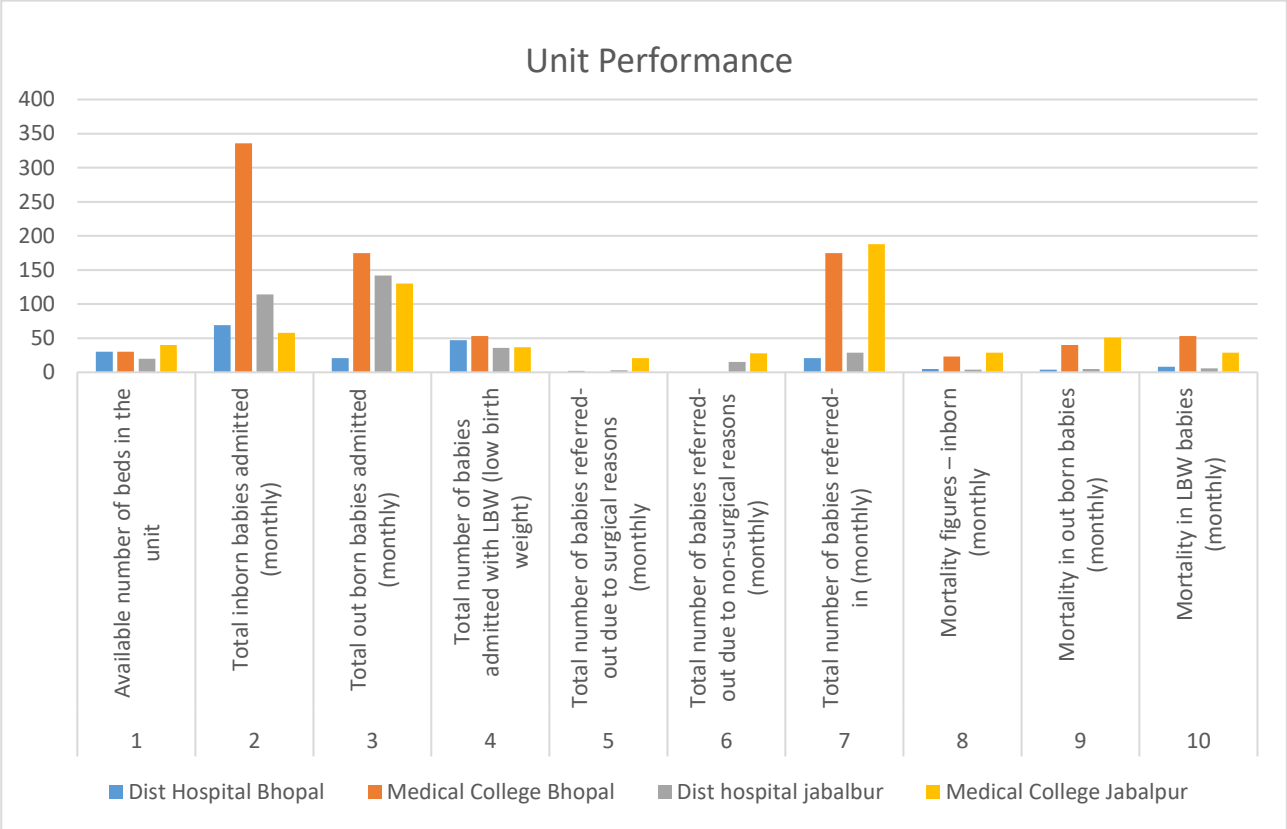


Observations

The listed equipment in graph are mandatory for special new born care unit .

- Medical college of Bhopal and Jabalpur are less equipped
- Graph shows no of different equipment that are less in no and which are mandatory to run a SNCU.

Unit performance-



Observations-

- Maximum no of mortality has been seen from medical college Jabalpur (i.e 48.44%), & then from MC Bhopal, DH Jabalpur & Bhopal respectively.
- Common symptom for death of neonatal are-
  Apnea, Hypothermia, central cyanosis, coma, jaundice, low birth weight.

Human Resources-

	Human Resource		**Available**			
S.no	**Staff members**	**Post (**as per FBNC Guidelines**)**	**Dist Hospital Bhopal**	**Medical College Bhopal**	**Dist hospital jabalbur**	**Medical College Jabalpur**
1	Doctor	4	4	6	4	8
2	Staff Nurse	19/22	18	24	19	18
3	Technician	1	1	0	1	0
4	Data Entry Operator	1	1	2	1	1
5	Ward boy	4	6	3	4	3
6	Aaya Bai	3	3	3	3	6
7	Sweeper	2	1	0	1	3
8	Security Guard	3	3	3	4	3

Observations-

- Doctor & nurses are available 24*7 in all the hospitals
- Cleaning & sanitization of hospitals are affected as there are no sweepers in above mentioned hospitals
- Work load was so much and data operators are unable to complete work as reporting get late.
- Functioning of equipment are affected as there is no technician available in medical college of Bhopal and Jabalpur

Functional areas- observations-

- Available area for bed is not sufficient. Each bed required 100 sq.ft area as per FBNC guidelines
- Separate areas for baby receiving is not designed in DH hoapital of Jabalpur.
- Breast feeding area & KMC area are not designed separately.
- Waiting area for relatives is not seen in district hospital Bhopal
- Seminar hall are not available in SNCU for training of nurses and aya bai.
- Instruction for hand wash and sanitization is not seen in any hospitals

Conclusion-

In last I want to conclude that the SNCUs that comes under the level 2 b of NNF accreditation does not fulfill the criteria.

- All the SNCUs need proper spaces for beds as the no. of bed is meeting the criteria but space for the same is not appropriate.
- SNCU is designed for care of neonatal but these areas are not fully cleaned as absence of sweeper is seen in hospitals
- Absence of technician is major issue in hospital as they are required in emergency.
- Mortality figure of medical colleges are more as compared to district hospitals and the reason could be above mentioned problems
- The number of equipment in hospitals which are mandatory and essential are less because of it the mortality of neonatal cannot be reduced.
- Proper training should be provided to staff nurses and ward boys So that any error can be reduced
- Proper area for KMC, Breast feeding are not seen, it should be designed properly
- Instruction for hand wash and sanitization are not seen in any hospital, it should be displayed in wall

References

- Neogi, S. B., Khanna, R., Chauhan, M., Sharma, J., Gupta, G., Srivastava, R., ... & Paul, V. K. (2016). Inpatient care of small and sick newborns in healthcare facilities. *Journal of Perinatology*, *36*(s3), S18.
- Neogi, S. B., Malhotra, S., Zodpey, S., & Mohan, P. (2011). Assessment of special care newborn units in India. *Journal of health, population, and nutrition*, *29*(5), 500.
- Mishra, A. K., & Panda, S. C. (2017). Status of neonatal death in sick newborn care unit of a tertiary care hospital. *International Journal of Contemporary Pediatrics*, *4*(5), 1638-1643.
- Ministry of Health & Family Welfare. (2011). *Facility based newborn care operational guide 2011*. Retrieved on April, 23 2018, link…...