

**Summer Training at
National Health Mission, Gujarat**

**Assessment of Special Newborn Care Units Using on Kayakalp Tool (Org.
Certificate Submitted Again After Proper Scan)**

**By
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**Under the guidance of
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**MBA Hospital & Health Management
2017-2019**


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2018

CERTIFICATE

This is to certify that **Mr. Bhanwar Prajapati** has undergone summer training at **National Health Mission, Gujarat** from **2nd April 2018 to 1st June 2018**.

The candidate himself completed the project assigned to him during summer training. His approach to the project was sincere and proactive. This summer training is in partial fulfillment of the course requirement recommended for the award of MBA in Hospital and Health Management.

I wish him success in all his future endeavors.


Dr. Monika Choudhary

Assistant Professor

IIHMR University, Jaipur


Col. (Dr.) Ashok Kaushik

Dean (Academic & Student Affairs)

IIHMR University, Jaipur





CERTIFICATE

This certificate is awarded to

Mr. Bhanwar Prajapati

In recognition of having successfully completed his Summer training in the department of
Health and Family Welfare Department and National Health Mission, Gujarat State
Posted Under the CDHO, Bhavnagar

under the guidance of **Dr JAYENDRA R GOHIL**, HOD Pediatrics, Sir T G Hospital,
and has successfully completed his project on

Analysis, Identify, and Assessment of Quality Control of SNCU,

Bhavnagar Region, Gujarat

from 2nd April to 1st June 2018

at the SNCU Department of Bhavnagar Region

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 endeavours.

Dr JAYENDRA R GOHIL,
Professor, Pediatrics,
Sir T G Hospital, BHAVNAGAR

Dr. J. R. Gohil
Prof. & Head
Pediatric Dept.,
Sir T. Hospital
Bhavnagar

CHIEF DISTRICT
HEALTH OFFICER,
BHAVNAGAR, Gujarat
Chief District Health Officer
District Panchayat, Bhavnagar

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 center
6.	CHC	Community health center
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 Summer Internship

Summer training is an important part of the PGDHM curriculum. In accordance with this, students of first year are required to undergo summer placement at any reputed organization to get in depth knowledge of various departments in the organization and better understanding of the health care delivery system and its functions.

The prominent aims of the summer training program are as follows: 1 To closely examine the existing health delivery system including public and private sectors.

1. To observe the implementation of various national health components at national/state/district levels.
2. To know various functions of health system by interactions with key stakeholders, policy makers, program managers, academicians, and researchers.
3. To work on the project/task assigned by summer training program.

INDEX

During our two months training period we had an overview of various components undertaken in national health mission, Gujarat including the current status of the components and our observations regarding the same. We also Carrick more	Abstract	Page No
	Acknowledgement	6
	List of Tables	4
	List of Acronyms	2
Part 1 Summer Training Report		
1	Organizational Profile	7
2	Managerial Tasks I did with respect to departments	
3	Learning in Internship time	
Part 2 Summer training Report		
S. NO	Contents	Page No
1	Introduction	11
2	Rationale of study	17
3	Review of Literature	18
4	Objectives	21
5	Data and Methods	21
6	Results and Observations	22
7	Conclusion	30
8	References	30

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In the beginning, I would like to acknowledge my sincere thanks to our institute, INSTITUTE OF HEALTH MANAGEMENT AND RESEARCH, Jaipur for providing me platform to gain enough knowledge and skills indifferent aspects of health management.

I am highly indebted to my mentor Dr.MONIKA CHAUDHARY for their guidance and constant supervision, as well as providing necessary information regarding, the project and also for their support in project completion. I would like to express my gratitude towards my project coordinator (Dr.GOHIL) and Dr. NAYAN JOSHI for the encouragement which helps me in completion of my project.

I would like to thank to supervisors and coordinators for giving me such attention and time at various stages of my project who have willingly helped me out with their abilities.

I would like to express my special thanks to my faculty member for giving me such a time and appreciations in developing the project with their abilities.

Last but not the least I would like to thank god and my beloved parents for their blessings for the successful completion of the summer training.

Thanking you

Mr.Bhanwar Prajapati

IIHMR University

Jaipur

Part 1 Summer Training Report

ORGANIZATION PROFILE

Introduction

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

It is both flexible and dynamic and is intended to guide States towards ensuring the achievement of universal access to health care through strengthening of health systems, institutions, and capabilities.

VISION OF NHM

Attainment of Universal Access to Equitable, Affordable and Quality health care services, accountable and responsive to people's needs, with effective inter-sectoral convergent action to address the wider social determinants of health .

- Safeguard the health of the poor, vulnerable and disadvantaged, and move towards a right based approach to health through entitlements and service guarantees
- Strengthen public health systems as a basis for universal access and social protection against the rising costs of health care.
- Build environment of trust between people and providers of health services.
- Empower community to become active participants in the process of attainment of highest possible levels of health.
- Institutionalize transparency and accountability in all processes and mechanisms.
- Improve efficiency to optimize use of available resources.

The NHM shall be a major instrument of financing and support to the states to strengthen public health systems and health care delivery. This financing to the state will be based on the state's Programme Implementation Plan (PIP). The PIP shall have following parts:

- Part I: NHM RCH Flexi pool,
- Part II: NUHM Flexi pool,
- Part III Flexible Pool for Communicable Diseases,
- Part IV: Flexible Pool for Non-Communicable Diseases, Injury and Trauma,
- Part V: Infrastructure Maintenance.

GOALS OF NHM

- To reduce Maternal Mortality Rate (MMR) to 258/ lac live births,
- To reduce Infant Mortality Rate (IMR) to 36/1000 births.
- To reduce Total Fertility Rate (TFR) to 2.8.
- Malaria mortality reduction rate by 60%
- Kala-azar mortality reduction rate by 100%
- Filariasis/Microfilaria reduction by 80%
- Leprosy Prevalence Rate-Less than 1 per 10000
- Tuberculosis DOTS series- 85% cure rate & 70% detection of new sputum smear positive cases.
- Upgrading all Community Health Centers (CHCs) to Indian Public Health Standard (IPHS).
- Increase bed occupancy of First Referral Units (FRUs) greater than 75%
- Engaging 1.23 lac ASHAs.
- Dengue mortality reduction by 50%
- Cataract operation - 42 lacs.
- Under National Blindness Control Programme (NBCP), objective is to reduce the prevalence rate from 1% to 0.5 by year 2012.
- To bring down Total Goiter Rate (TGR) to less than 10%.

- To ensure that more than 90% households consume iodized salt.
- To ensure availability of AYUSH by ensuring that at each block primary health center (PHC), at least 2 Medical Officers (MOs), one of them AYUSH practitioner, are available all the time.
- Safe drinking water and sanitation facilities to greater than 60% of villages.
- Reduction of malnourished children by half of present level.

SCHEME OF NHM GUJARAT

- Mukhyam, antri Amrutum.
- Rogi kalyan Samiti
- Bal sakha yojana
- Janani suraksha yojana
- Immunization
- Obstetric ICU

NHM COMPONENTS

- NHM Finance – FMG
- Reproductive, Maternal, Newborn, Child, and Adolescent Health
- Health Systems Strengthening
- NUHM

The National Health Mission seeks to provide effective health care to all population throughout the country. It about two- thirds of Infant Mortality Rate (IMR) and about half of, under-5 Mortality Rate (U5MR).

There is a growing recognition that to meet national goals and the millennium Development Goals (MDGs) to bring down childhood mortality, a substantial reduction in NMR is needed,

and reducing deaths in, the first week of life is essential to make progress. The Government of India is committed to improve the availability of quality newborn care services in addition to renewing efforts in providing quality health care for women, infants and young children under the National Health Mission (NHM), and its Reproductive, and Child Health Programme .

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 center and care at Newborn Stabilization Units (NBSU), in the first referral units. Care in the NBSU includes Stabilization of sick newborns and care of low- birth Weight (LBW), babies not requiring intensive care.

Level 2 Care includes functioning, of Special Newborn Care Units (SNCUs) at the district hospital and some of the sub district hospital level. These units are being established at any health facility where the delivery load is more than 3000 per year and are equipped, to handle sick newborns other than those who need ventilator support and surgical **care**. It has been estimated that around 15-20 % of all newborns require level 2 care in rural settings.

Level 3 units are the neonatal intensive care units (NICUs) which provide all care including assisted ventilation and major surgery.

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 is a neonatal unit in the vicinity of the labor room which provides level 2/3 care (all care except assisted ventilation and major surgery) for sick newborns,. All district hospitals and sub – district hospitals with more than 3000 deliveries per year should have a SNCU.

Services to be provided at SNCU

Table 1: Expected services to be provided at SNCU		
Care at birth	Care of normal newborn	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

Triage area: this should have 1 warming bed. First the child to be taken in triage area for resuscitate and complete care and after that shift to newborn / out born unit.

Newborn care area: This should have at least 12-16 warmingbeds should have divided into two interconnected rooms inborn and out born separated by transparent observation window with the nurse's work place in between.

Step- down unit: This is an additional 4 bed step down unit where recovering neonates can stay i.e., neonates who do not need intensive monitoring.

Newborn ward: This is an additional 10- 25 bed, where both mother and the newborn stay together. This facility is to be used for neonates who require minimal support such as for

phototherapy, for uncomplicated LBW babies requiring only observation and those babies who require only intravenous antibiotic therapy.

Ancillary area:

Distinct support space should be provided for all other services that are routinely performed in the SNCU. The ancillary area should include space for the following:

- Nursing work station, hand washing and gowning area at the entrance.
- Side laboratory room and examination area.
- Follow-up clinic
- Clean area for mixing intravenous fluids and medication, 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 and for other staff members.
- Place for promotion of breast- feeding and learning mother craft etc.

Human resources for Special Newborn Care Unit

A 12 bedded unit, (plus 4 beds for the step- down area) requires at least one pediatrician or 4 trained MBBS doctors. It is purposed that one pediatrician trained in neonatology should be posted at the unit, supported by two or three medical officers trained in FBNC. There should be three nurses in each shift, round the clock and sufficient nurses recruited to provide for leave vacancy and contingency.

Dedicated support staff should be available to clean the unit at least once during every shift and more often depending on the need. A part- time lab technician, a counselor, and a data entry operator should also be posted at the unit.

Criteria for admission to SNCU:

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

- Birth weight <1800gm or gestation <34 weeks
- 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:

- If the Baby can 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.
- When the 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 center. 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.

Observer ship training:

This Programme includes 2-week training for all doctors and nurses posted in SNCU.

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 need to focus on newborn care and survival for significant reduction in IMR and U5MR and strengthen the care of sick, premature, low birth weight newborns at the various levels of facilities right from the moment to birth through the neonatal period. Hence, the need has emerged to evaluate the overall functioning of SNCUs in terms of utilization, performance based on geographical and ecological factors, treatment outcome, socio-demographic and clinical factors, and functionality, availability 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.

This study can be held in all the other districts of Rajasthan by Child Health Department, If State, through this tool, achieves a score of Mandatory >80 of each parameter in each of its facilities, Rajasthan can achieve the best Indian standards in Neonatal Care.

- SNCUs are expected to play a key role in saving newborn lives. Huge investment required, so it becomes essential to monitor their functioning and affectivity.
- New RCH initiatives such as JSY, JSSK are gaining ground and hence SNCU network need to be well-strengthened.
- The Government of India (GOI) is committed to improve the availability of quality newborn care services in addition to renewing efforts in providing quality health care for women, infants and young children under the National Rural Health Mission (NRHM) and its Reproductive and Child Health Programs (RCH II).

REVIEW OF LITERATURE

Operational guide on FBNC has been developed to facilitate planning, establishment, operationalization and monitoring of newborn care facilities at various levels of public health facilities. The guidelines given here will assist programs managers and service providers at national, state and district level in planning and delivering FBNC. The first section of the

guide focuses on specifications and processes related to establishment of new facilities, while the second section provides technical guidance (key clinical protocols) to service providers working in new born care facilities for managing sick new born. The guide lines have been put together based on recommendations of an expert group that was set up by the Gland included experts from medical colleges, professional bodies-National Neonatology Forum (NNF) and Indian Academy of Pediatrics (IAP), and from UNICEF, WHO, USAID and NIPI.

The operational guide includes information on various aspects that need to be addressed for ensuring quality new born care services and is organized in two sections.

Section I: Setting up, costing and operational steps

Section II: Key clinical protocols and other technical documents

Terminology

New born Care Corner (NBCC)

NBCC is as place with in the delivery room in any health facility where immediate care is provided to all new born at birth. This is MANDATORY for all health facilities where deliveries are conducted.

New born Stabilization Unit (NBSU)

NBSU is a facility within or in close proximity of the maternity ward where sick and low birth weight new born can be care for during short periods. All FRUs/ CHCs need to have a neonatal stabilization unit, in addition to the new born care corner.

Special New Born Care Unit (SNCU)

SNCU is a neonatal unit in the vicinity of the labor room which will provide special care (all care except assisted ventilation and major surgery) for sick new born. Any facility with more than 3,000 deliveries per year should have an SNCU (most district hospitals and some sub-district hospitals would fulfill this criteria).

1. The study was conducted to assess the functioning of SCNUs in eight rural districts of India. The evaluation was based on an analysis of secondary data from the eight units that had been functioning for at least one year. A cross-sectional survey was also conducted to assess the availability of human resources, equipment, and quality care. Descriptive statistics were used for analyzing the inputs (resources) and outcomes (morbidity and mortality). The rate of mortality among admitted neonates was taken as the key outcome variable to assess the performance of the units. Chi-square test was used for analyzing the trend of case-fatality rate over a period of 3-5 years considering the first year of operationalization as the base. Correlation coefficients were estimated to understand the possible association of case-fatality rate with factors, such as bed: doctor ratio, bed: nurse ratio, average duration of stay, and bed occupancy rate, and the asepsis score was determined. The rates of admission increased from a median of 16.7 per 100 deliveries in 2008 to 19.5 per 100 deliveries in 2009. The case-fatality rate reduced from 4% to 40% within one year of their functioning. Proportional mortality due to sepsis and low birth weight (LBW) declined significantly over two years (LBW <2.5 kg). The major reasons for admission and the major causes of deaths were birth asphyxia, sepsis, and LBW/prematurity. The units had a varying nurse: bed ratio (1:0.5-1:1.3). The bed occupancy rate ranged from 28% to 155% (median 103%), and the average duration of stay ranged from two days to 15 days (median 4.75 days). Repair and maintenance of equipment

were a major concern. It is possible to set up and manage quality SCNUs and improve the survival of newborns with LBW and sepsis in developing countries, although several challenges relating to human resources, maintenance of equipment, and maintenance of asepsis remain.

2. Evidence-based, cost-effective interventions: how many newborn babies can we save?

In this article of the neonatal survival series, we identify 16 interventions with proven efficacy (implementation under ideal conditions) for neonatal survival and combine them into packages for scaling up in health systems, according to three service delivery modes (outreach, family-community, and facility-based clinical care). All the packages of care are cost effective compared with single interventions. Universal (99%) coverage of these interventions could avert an estimated 41–72% of neonatal deaths worldwide.

3. To evaluate the impact of creating a sick newborn care unit (SNCU) in a district hospital on neonatal mortality rate (NMR). This study was conducted in a district hospital with 6500 deliveries a year. A 14 bed SNCU that included controlled environment, individual warming and monitoring devices, infusion pump, central oxygen and oxygen concentrators, resuscitation and exchange transfusion, portable X-ray and in-house laboratory was created. Doctors and nursing personnel were trained. Baseline data for 10 months were compared with 2 years data of SNCU operation. A 14 bed SNCU that included controlled environment, individual warming and monitoring devices, infusion pump, central oxygen and oxygen concentrators, resuscitation and exchange transfusion, portable X-ray and in-house laboratory was created. Doctors and nursing personnel were trained. Baseline data for 10 months were compared with 2 years data of SNCU operation. Compared with the baseline neonatal mortality in the district hospital, neonatal mortality was reduced by 14% in the first year and by 21% in the second year after SNCU became functional. Estimated neonatal deaths averted were 329, which would reduce NMR of the district from 55 to 47 in 2 years.

4. A study of neonatal admission into newborn special care unit. Nigeria journal of paediatric 1994;21:20: A retrospective study of newborn babies admitted over a period of six years into the Newborn special care unit (NBSCU). The number of babies admitted was 5376. Babies of LBW comprised 25.7 percent of total admission. There was progressive annual increase in the

admission of outborn babies from 0.7 percent in 1982 to 21.4 in 1987. there similar annual increase in admission of babies of LBW from 17.3 to 51.8 percent. the overall mortality was high at 10.5 percent of the cases.

Objective

“To assess the status of Special Newborn Care Units (SNCU) in Gujarat state according to NNFI accreditation tool”

AIM: improving quality of SNCU in Bhavnagar region (Bhavnagar, Amreli, Junagadh)

- a) To assess the quality of SNCU using as per the kayakalp
- b) To identify the area of improvement

METHOD AND TOOLS: METHODOLOGY

MODE OF DATA COLLECTION:

Study area- Special Newborn Care Unit of Gujarat

1. District hospital
2. Medical colleges

Study Design - Comparative study

Study period – April 2nd to June 2nd, 2018

Study population- Special newborn care units

Sampling Frame – 3 Special newborn care units in Gujarat

Sample Size – 50% Sampling as per convenience: 3 SNCUs

Study Tool – A pre-designed, pre-tested structured National Neonatology Forum India Accreditation Tool questionnaire

FINDING & Observation

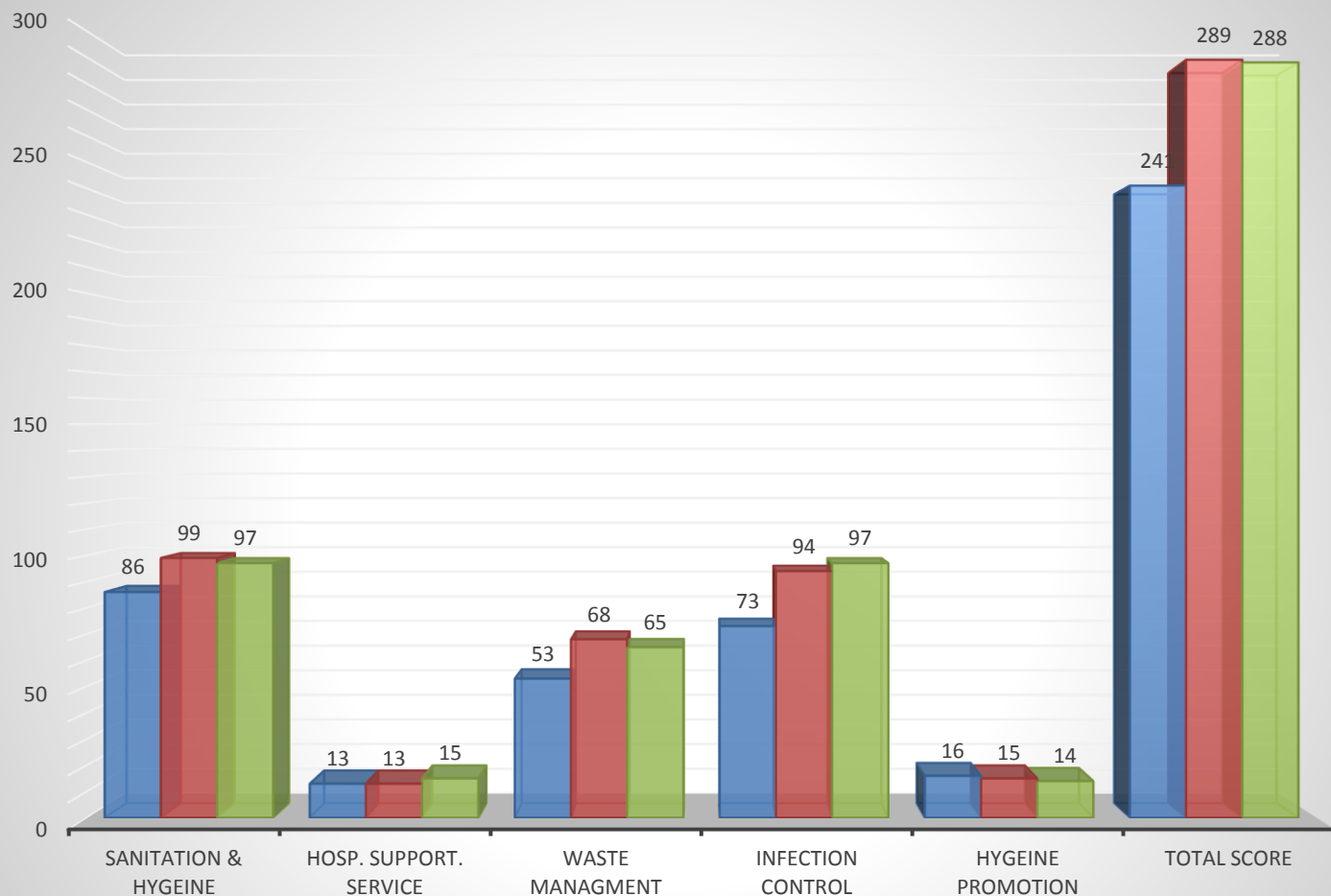
S. No	Kayakalp Domain	Max. No.	Score of obtained by Districts			Avg. No.	Area consensus
			Bhavnagar	Amreli	Junagadh		
A	SANKITATION AND HYGIENE						
A1	Cleanliness of SNCU (Corridors)	10	7	10	10	9	++
A2	Cleanliness of SNCU	20	14	20	20	18	++
A3	Cleanliness of ambulatory area of SNCU	10	9	10	10	9.666667	++
A4	Cleanliness of auxiliary areas of SNCU	10	9	8	10	9	++
A5	Cleanliness toilets of SNCU	30	15	13	7	11.666667	--
A6	Use of standard materials cleaning for SNCU	10	10	7	10	9	++
A7	Use of standard methods cleaning of SNCU	10	1	5	4	3.333333	--
A8	Application of mechanized cleaning of SNCU	10	1	3	4	2.666667	--

A9	Monitoring mechanism for cleanliness activities of SNCU	10	4	6	4	4.666667	--
A10	Drainage and sewage management of SNCU	10	6	5	8	6.333333	-
A11	Maintenance of equipment for cleaning of SNCU	10	8	10	10	9.333333	++
B	HOAPITAL SUPPORT SERVICES						
B1	Security services of SNCU	10	10	10	10	10	++
B2	Outsource service management of SNCU	10	3	3	5	3.666667	--
C	WASTE MANAGEMENT						
C1	Segregation practices of biomedical waste of SNCU	10	10	7	7	8	+
C2	Collection, storage and transportation of biomedical waste of SNCU	10	6	8	10	8	+
C3	Disposal of biomedical waste of SNCU	10	5	6	5	5.333333	-

C4	Equipment and supplies for B.M.W. of SNCU	10	10	10	8	9.333333	++
C5	Sharp management of SNCU	10	8	10	10	9.333333	++
C6	General solid waste management of SNCU	10	7	10	8	8.333333	+
C7	Liquid waste management of SNCU	10	5	7	8	6.666667	-
C8	Management of hazardous waste of SNCU (radioactive etc.)	10	2	10	10	7.333333	+
D	INFECTION CONTROL						
D1	Hand hygiene facilities of SNCU	10	9	10	10	9.666667	++
D2	Personal protective equipment of SNCU	10	5	10	10	8.333333	+
D3	Personal protective Practices of SNCU	10	10	10	10	10	++
D4	Decontamination and Cleaning of Instruments of SNCU	10	8	10	10	9.333333	++
D5	Disinfection & sterilization of Instruments of SNCU	10	9	10	10	9.666667	++

D6	Spill Management of SNCU	10	3	10	10	7.666667	+
D7	Isolation & Barrier nursing of SNCU	10	9	6	7	7.333333	+
D8	Infection Control programme and level of sanitation / awareness of SNCU	10	4	10	10	8	+
D9	Hospital Acquired Infection surveillance of SNCU	10	10	8	10	9.333333	++
D10	Environment control of SNCU	10	6	10	10	8.666667	+
E	HYGIENE PROMOTION						
E1	Community Monitoring and Patient Participation of SNCU	20	16	15	14	15	+

Comparison of SNCU of bhavnagar region Gujarat



	SANITATION & HYGIENE	HOSP. SUPPORT. SERVICE	WASTE MANAGEMENT	INFECTION CONTROL	HYGIENE PROMOTION	TOTAL SCORE
SNCU BHAVNAGAR	86	13	53	73	16	241
SNCU AMRELI	99	13	68	94	15	289
SNCU JUNAGADH	97	15	65	97	14	288

General observation

- The Bio-medical waste management policy not being properly followed at facility
- Proper Triaging of newborn is not being followed at unit
- The x- Ray machine along with other equipment at SNCU is not in use
- ABG machine not in use due to various unavailability of reagents.
- Stethoscope available in store but not in use in unit

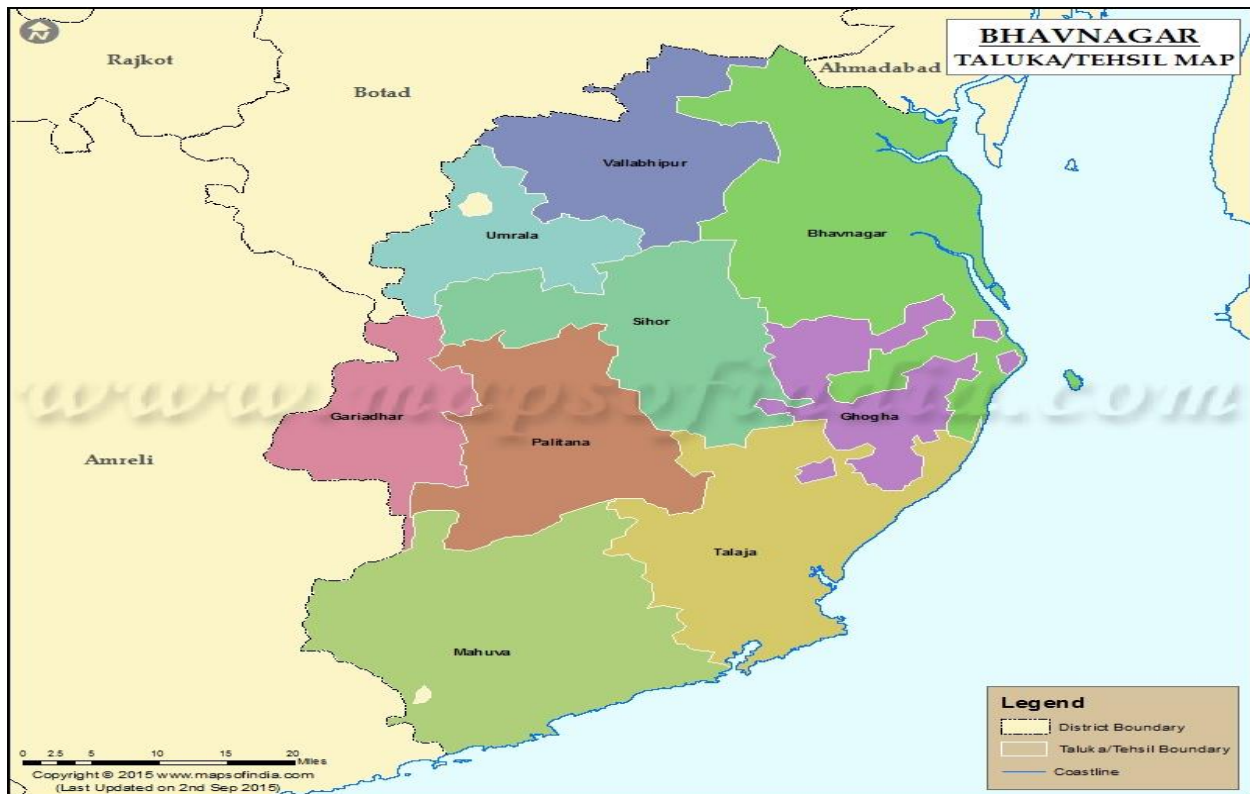
- In NBCC hygienic and infection control practices are not followed in the unit

General Mandatory Fields of Lacking:

- One Stethoscope with each of the neonatal bed is not available in SNCU.
- Utility areas are not well maintained
- A log book with daily shift –wise recording of temperature is not maintained in SNCU.
- One resident doctor (post MBBS) for the unit in each shift not available in SNCU.
- The neonatal nursing staff or trained doctors in all transports (documentary proof) are not available in Ambulance.
- A separate emergency tray for every 4 babies not available in SNCU.
- Surgical instruments (suture/ SET) along with essential equipment is not avail
- Key learning:
- Improper infection control practices can increase chances of Hospital Acquired Infection (HAI)
- Outsourcing of laundry & mess in hospitals can improve the quality
- Bio-medical waste management should follow Bio-medical waste management act protocol
- HR should engage in motivating employees to get desired output
- Isolation ward must be required
- Proper electricity connectivity is required in hospital

MATERIAL AND METHODS

The present study titled “**Analysis, Identify, and Assessment of Quality Control of SNCU, Bhavnagar Region, Gujarat**” was carried out in Bhavnagar district



Bhavnagar district is a district of south-eastern Gujarat, India, on the Saurashtra peninsula. Bhavnagar district covers an area of over 10034 km². The coastal area is mostly alluvium. Bhavnagar borders with Ahmadabad district to the northeast, Botad district to the northwest, the Gulf of Cambay to the east and south and Amreli district to the west. In 2011, Bhavnagar had a population of 2880365 of which male and female were 1490201 and 1390164 respectively. Bhavnagar has a sex ratio of 933 females for every 1000 males, and a literacy rate of 75.52%.

Sample size: 3 SNCU health care facilities.

Study period: 2 months.

Study tool

Data will be collected by Personal Observations, documentation with photographs (whenever and wherever needed & personal interviews of FDP in-charge & Concerns staff using pre-tested and pre-structured proforma.

Development and Description of SNCU Tool

This questionnaire consists of 180 items, each item consists of one correct answer and each correct answer carries two mark.

The questions were related to the following aspects

Area	ITEMS
SANITATION & HYGEINE	140
HOSP. SUPPORT. SERVICE	20
WASTE MANAGEMENT	80
INFECTION CONTROL	100
HYGEINE PROMOTION	20

Total Items = 5, Maximum score = 360, Minimum score = 0

Criterion Measure

The criterion measure used in the study was quality control score related questions. The quality control score refers to the total obtained score on quality control related questionnaire by kayakalp.

	Level of WASH Services	Score	Percentage
A	Basic Service	≥ 324	$\geq 90\%$
B	Limited Service	216-323	60%-89%
C	Unimproved/ No Service	≤ 215	$\leq 59\%$

Suggestions:

- Drainage and waste management facilities of Bhavnagar district hospital must be improved up to the desired level.
- Though the facilities of Amreli and Junagadh district hospitals are comparatively good, yet, there is a scope of improvement in waste management of these hospitals
- Proper training of staff and residence doctors and Incentives must be given to the staff.

- Each SNCU department need to be equipped with its own isolation unit.

Conclusion:

The findings of this comparative study clearly show that facilities in district hospital of Bhavnagar region is very poor as compared to other two districts namely Amreli and Junagadh. Specifically, Sanitation & Hygiene facility of Bhavnagar district hospital is very disappointing.

Reference:

Tools from KayaKalp