State Institute of Health and Family Welfare Haryana, Panchkula

(April 1 to May 29,2015)

Summer Training Project Report

A STUDY TO ASSESS THE UTILIZATION OF ANTENATAL CARE SERVICES IN AMBALA AND PANCHKULA DISTRICTS OF HARYANA

And

TRAINING IMPACT ASSESSMENT OF BASIC LIFE SUPPORT (BLS) AMONGST DOCTORS AND STAFF NURSES OF TWO DISTRICTS OF HARYANA

(Under the guidance of Dr. Neetu Purohit, Associate Professor, The IIHMR University, Jaipur)

By

Dr. Shifa Arora

MBA Hospital and Health Management

2014-2016

IIHMR UNIVERSITY

Institute of Health Management Research, Jaipur

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

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that Shifa Arora has completed the summer internship at State Institute of Health and Family Welfare, Haryana, Panchkula from 1st April to 29th May, 2015 and has conducted the following projects under my guidance,

- **"A study to assess the utilization of antenatal care services in Ambala and Panchkula districts of Haryana."**
- **"Training impact assessment of basic life support (BLS) amongst doctors and staff nurses of two districts of Haryana."**

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

The approach to the project has been sincere, scientific and analytical. The work is in partial fulfilment to the course requirements recommended for the Master of Business Administration in Hospital and Health Management, with specialization in Health Management.

I wish her success in all her future endeavours.

Col. Dr .Ashok Kaushik
Dean (Academic & Students Affairs)
IIHMR University, Jaipur

Dr. Neetu Purohit
Associate Professor,
IIHMR University, Jaipur

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur- 302029, Rajasthan, India.
Ph.: 0141- 3924700, 2791431- 32, Fax: 0141 3924738, E-mail: iihmr@iihmr.edu.in, Web.: www.iihmr.edu.in

STATE INSTITUTE OF HEALTH & FAMILY WELFARE
HARYANA

TO WHOM IT MAY CONCERN

This is to certify that **Dr. Shifa Arora**, a student of MBA (Hospital and Health Management) from IIHMR Jaipur did her summer training under State Institute of Health & Family Welfare, Haryana from **1st April 2015** to **29th May 2015** on the topic ***"A study to assess the utilization of Antenatal Care services and factors affecting it in Districts Ambala & Panchkula of Haryana"***. An additional topic done by her was on ***"Training impact assessment of Basic Life Support (BLS) amongst Medical Officers & Staff Nurses in Ambala & Panchkula Districts of Haryana"***.

Her approach has been sincere, scientific and analytical towards the study. I wish her good luck in all future endeavours.

No. 8/93(IIHME)-SIHFW-13/2824
Dated: 29-5-2015

Principal

SIHFW Haryana

Postal Address: SIHFW Haryana, General Hospital Campus (Behind Topiary Park)
Sector-6, Panchkula 134109 e-mail: principalsihfw@gmail.com
Phone No. 0172-2590629 (Tele-fax), Hostel: 0172-2570005

Executive Summary

The objective of the study was to assess the utilization of antenatal care services by all the women aged 18-45 years who have delivered within last 6 months i.e. from November 2014 and the factors affecting this utilization in district Panchkula and Ambala, Haryana.

It is a cross sectional retrospective study. A total of 97 women (49 in Panchkula and 48 in Ambala) were interviewed using a pretested semi structured questionnaire. The sample was selected from 7 different sub centers in Panchkula and 5 sub centers in Ambala and then household survey was carried out.

The study shows a very high number of women utilizing antenatal care services which are approximately 90% in both the districts but women who had full ANC coverage, according to national health mission guidelines, is 27.27% in Panchkula and 34.88% in Ambala district excluding the general pregnancy counseling and counseling regarding pregnancy complications.

The main factors which came out to be affecting ANC utilization negatively in both the districts are educational status of the mother, caste and age at marriage.

Regular counseling and proper physical and abdominal examination of women during every visit is required to improve the full ANC coverage status of both the districts

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Acknowledgement

At the beginning of the report, I would like to express my special gratitude and appreciation to the SIHW, Haryana authority, especially to the Principal, Dr. Usha Gupta ma'am for providing me such an opportunity. It would have been impossible to complete my training without her constant support and guidance.

This acknowledgement would be incomplete without my sincere and special thanks to Dr. Puneet Gupta Consultant- Training, SIHFW who despite of other preoccupations and busy schedule was there to guide me throughout the period and whose invaluable suggestions and encouragement helped me complete my training.

I would also like to extend my gratitude to Dr. Saroj Aggarwal , Dy. Civil Surgeon, Capacity Building & Training, district Panchkula and Dr. Alaknanda, Dy. Civil Surgeon, Capacity Building & Training, district Ambala for their constant support and guidance during respective district's field work.

I would also like to express my gratitude and respectful regards to my mentor Dr. Neetu Purohit, the IIHMR University, Jaipur for her able guidance and giving her valuable feedbacks if and when required, which helped me in completing this project work.

A special thanks to Dr. Suresh Joshi, the IIHMR University, for taking out time to guide me from his busy schedule and giving his valuable feedbacks if and when required.

I would also like to mention special thanks to my colleague Dr. Shivika Chug for being with me even in the most difficult situations during field work and supporting me throughout the summer training and making it a great learning experience.

Finally and most importantly, I would like to thank God for allowing me to complete my project, my heartfelt thanks to my beloved parents for their blessings for successful completion of this summer training

Preface

Summer internship is an integral part of the MBA Health and Hospital Management curriculum. As part of the course, the students of the first year are required to undergo summer training at an organization, to get in depth exposure of various departments in the organization to get a better understanding of health care delivery system.

The major objectives of the summer training program are as follows;

1. To better understand the existing health delivery system including public and private sectors.
2. To observe the implementation of various National Health Programs at National/State/District levels.
3. To understand various functions of health systems by interactions with key stakeholders, policymakers, program managers, academicians and researchers
4. To work on the project/task assigned by summer training organization.

During my training period, I had an overview of various programs and trainings undertaken in State Institute of Health and Family Welfare including the current status of programs. I also carried out a study on-

"A STUDY TO ASSESS THE UTILIZATION OF ANTENATAL CARE SERVICES AND FACTORS AFFECTING IT IN DISTRICT AMBALA AND PANCHKULA OF HARYANA"

I also had an opportunity to visit and access services and infrastructure at District Hospital, Panchkula.

3. LIST OF ABBREVIATIONS

ANM	Auxiliary Nurse Mid-wife
ASHA	Accredited Social Health Activist
ANC	Ante Natal Care
CHC	Community Health Center
DLFHS	District Level Household and Facility Survey
EMW	Ever Married Women
GOI	Government of India
IFA	Iron and Folic Acid
MDG	Millennium Development Goals
MMR	Maternal Mortality Rate
NFHS	National Family Health Survey
NHM	National Health Mission
PHC	Primary Health Center
PNC	Post Natal Care
RCH	Reproductive and Child Health
SC	Sub Center
SIHFW	State Institute of Health and Family Welfare
TT	Tetanus Toxoid

4. SIHFW – AN INTRODUCTION

SIHFW Haryana was established in 1993 and is the apex training institute of Department of Health & Family Welfare, Haryana. Since its inception, SIHFW has been envisaged as State level institution for improving the effectiveness of health care delivery system by imparting knowledge and skill based trainings to the medical and Para-medical health personnel at different levels.

SIHFW as a Society

SIHFW was formally registered as a Society with the Registrar of Societies (Reg.No. 73/2010-11) by the Government of Haryana with the District Registrar of firms and societies, Panchkula, Haryana under the Societies Act 1860 in the name of "Swasthya Prashikshan Kendra" on 11th November 2010.

SIHFW as Collaborating Training Institute (CTI)

SIHFW, Haryana was recognized as CTI in the year 2005 and is also supporting Chandigarh (U.T.) and State of Jammu & Kashmir in implementing their CTPs, apart from Haryana. SIHFW Haryana provides trainings to the health personnel on the basis of nominations received and also share pool of master trainers to impart trainings in their respective states.

SIHFW as ISO 9001:2008 Certified institute

The institute got the ISO 9001:2008 certification on 2nd August, 2013 and is valid until 2nd August, 2016. The certification is for development of human resources for health through capacity building, training and institutional development.

Vision

The vision of the institute is to enable the provision of quality patient-centric health care services by optimum capacity building of health care personnel in the State.

Mission

The mission of the institute is to establish the training needs of health care personnel at primary, secondary, tertiary care levels and assist the districts in their capacity building

through the production of trained manpower at State level & regular monitoring of their services.

Quality Policy

The policy of the Institute is to develop, update and refresh the knowledge and skills of the health care personnel in the state by providing quality trainings at State level and ensuring standardized trainings at District level following the Training Needs Assessment with continual improvement.

Quality Objectives

1. Developing health research and training, based on health care needs assessment of the state.

2. Formulate integrated trainings on GoI/MoHFW guidelines.

3. Promotion of alternative training approaches.

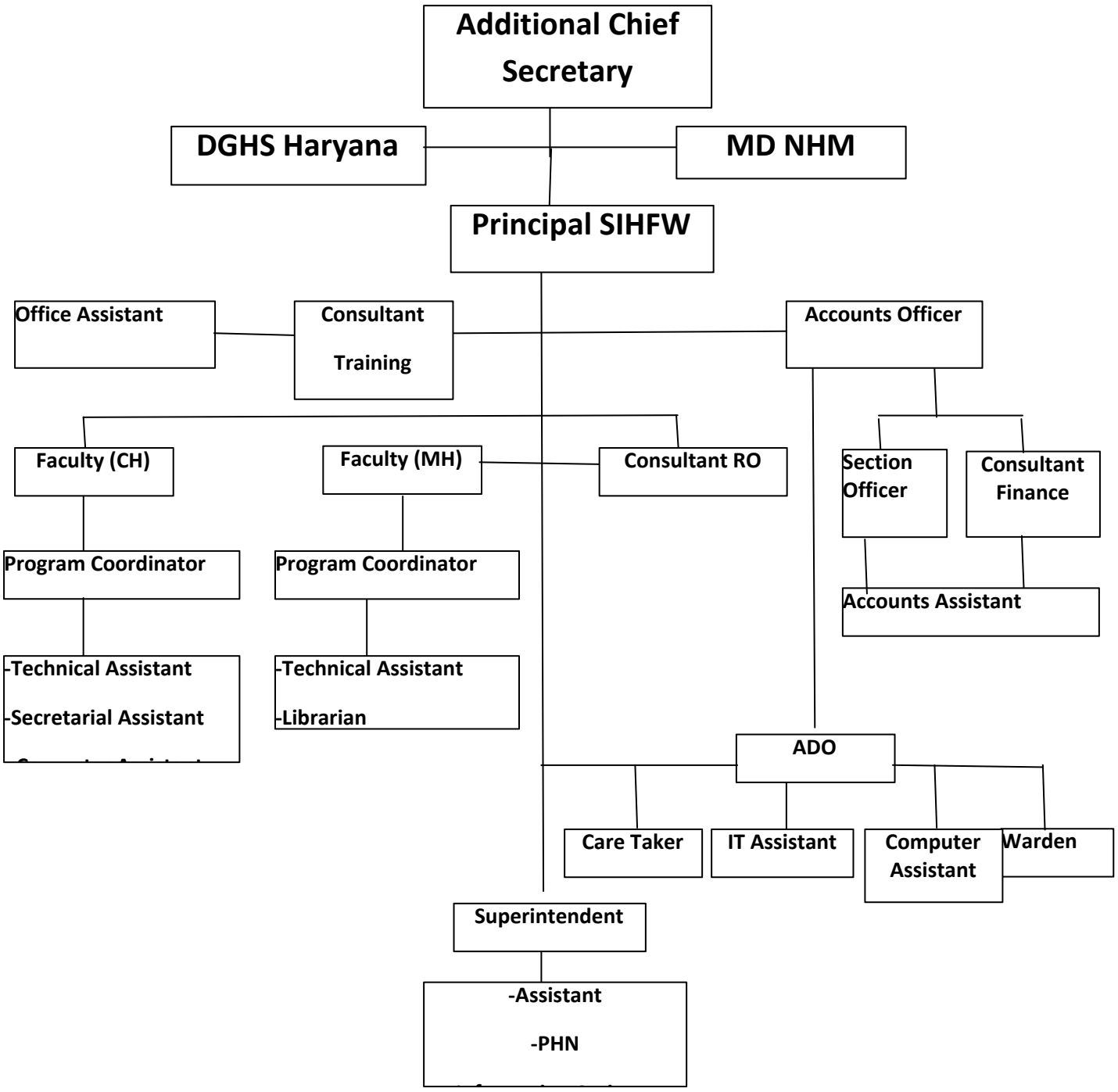
4. Building the pool of skilled health personnel to provide quality nursing education.

5. Impart skill based trainings to medical personnel so as to provide quality obstetric care.

6. Monitor the quality of trainings imparted by an external agency to ensure authentic & fair evaluation.

7. Collate all training data and enter in software so as to identify trained manpower at each health facility and also identify status of trainings undergone by each health care personnel.

ORGANOGRAM OF THE INSTITUTE



SIHFW – SPECIAL INITIATIVES

(a) Strengthening of Pre-Service Education for Nursing and Midwifery cadre

Government of Haryana besides seeking the strengthening of PSE of Nursing and Midwifery cadre in Government ANMTCs- GNMTCs is also working towards improving the same in Private ANMTCs- GNMTCs as a substantial number of ANMs and GNMs are produced by the Private sector. Out of approximately 151 total ANMTCs-GNMTCs in the state, 140 are private and hence it becomes imperative that focusing on Government sector alone won't help to achieve desired improvements in service delivery by ANMs-GNMs in the state.

Establishment of skill labs in Haryana

- 4 skill labs have been established at 4 divisions of Haryana in Panchkula, Bhiwani, Rohtak and Faridabad.
- 6 skill stations has been set as per the skill labs operational guidelines of GoI i.e. Antenatal care, intranatal care, complication management, new born care, Family planning, Infection prevention in each skill lab.
- The in-service training of the medics and paramedics is being conducted in these skill labs based on RMNCH+A strategy.

(b) Curing Clubfoot Haryana

- An initiative taken up by SIHFW in collaboration with NRHM and Health Department Haryana to undertake a project on Curing Clubfoot in the State in FY 2013-14. It is estimated that one child is born with CTEV per 700-800 live births in Haryana. As per this data, there should be 60-70 CTEV children are born in the State every month.
- National level ToT for Ponseti method for clubfoot management

(c) Training Management Information System (TMIS)

- TMIS is envisaged as "Single Window" software for all data related to trainers, participants, training centers and facilities of all the states of India.
- TMIS launched in Haryana on 30th April' 2013.
- Currently TMIS has reached its final stage of implementation in Haryana where the data of each training conducted at District level has been put in the Software.

(d) ACLS/BLS Provider courses

SIHFW Haryana has taken the initiative to start American Heart Association certified ACLS/ BLS courses in Haryana for HCMS Doctors.

It has been declared as a satellite training site of Maulana Azad Medical College –International Training Centre for conducting American Heart Association certified BLS and ACLS provider courses on 19th May 2014. This is for the first time in the country that any SIHFW has achieved such a prestigious status. SIHFW, Haryana stands 4th out of all government institutions in country to have been declared as a Satellite training site of MAMC-ITC for conducting these provider courses.

(e) Competency assessment and training of all Staff Nurses & ANMs

- Need based competency enhancement of nursing staff across the state was undertaken which is preceded by an assessment.
- To improve the skills of the in-service SNs & ANMs, those working at all delivery points were prioritized for skill enhancement as per the guidelines**.**

(f) ISO 9001:2008 certified institute

- SIHFW Haryana became the 2nd SIHFW in India after SIHFW Rajasthan which is ISO 9001:2008 (International Organization for Standardization) certified.
- The institute got the certification on 2nd August 2013 and is valid for 3 years.
- The certification is for development of human resources for health through capacity building, training and institutional development through a systematic & well defined approach.

(g) External evaluation of quality of trainings at District level

- SIHFW Haryana undertook the services of Population Research Centre, Punjab University, Chandigarh as a third-party agency to monitor the quality of trainings being conducted in the Districts of Haryana on the basis of an MoU signed on 9th December 2014.
- The various aspects being looked into during the monitoring exercise are – infrastructure at District Training Centre, quality of training sessions, appropriateness of training material, overall management of training and skills of trainees (ANMs & SNs).
- The exercise was carried out by PRC along with hired project staff during the period Feb-April 2015.

(h) SIHFW as a research organization

- In the year 2012, 11 students of health management from premiere institutes like IIHMR Jaipur and IIHMR Delhi were taken up for summer training.
- In the FY 2014-15, 5 students from IIHMR Jaipur did their summer training at SIHFW, working on diverse topics related to public health. Also, 1 student from Centre for Public Health, Punjab University, Chandigarh did her summer training.
- For the FY 2015-16, 4 students have again been taken up (2 each from IIHMR Jaipur & IIHMR Delhi) for the summer training for the period April-May 2015.
- These studies are perceived as a source for analyzing the health scenario w.r.t. variables chosen for the study. This is anticipated to go a long way towards improvement in various health indicators in the State through understanding of the issues and consequently devising strategies for their betterment.

(j) e-learning courses – PDC and PMSU

- NIHFW, New Delhi selected SIHFW Haryana for the pilot launch of e-PDC (Professional Development Course) and e-PMSU (Programme Management Support Unit).
- The e-PDC is meant for Senior Medical Officers who would be in forefront to occupy district level positions.
- The e-PMSU course is meant for programme managers at State, District and Block level working in the public health system. The course is expected to enhance the capacity of these managers in better understanding of the health system.

(k) Satellite center of NIHFW, New Delhi for contact programs of Distance learning courses

NIHFW, New Delhi selected SIHFW, Haryana as one of its centers for the contact programs of distance learning courses in Hospital Management and Health & Family Welfare Management.

A STUDY TO ASSESS UTILIZATION OF ANTENATAL CARE SERVICES IN PANCHKULA AND AMBALA DISTRICTS OF HARYANA

5. INTRODUCTION

Pregnancy and childbirth are normal events in the life of a woman. Though most pregnancies result in normal birth, it is estimated that about 15% may develop complications, which cannot be predicted. Some of these may be life threatening for the mother and/or baby. Since any pregnancy can develop complications at any stage, so timely provision of obstetric care services is extremely important for management of such cases and as such, every pregnancy needs to be cared for.

Antenatal care is the systemic supervision of women during pregnancy to monitor the progress of fetal growth and to ascertain the well-being of the mother and the fetus. A proper antenatal check-up provides necessary care to the mother and helps identify any complications of pregnancy such as anemia, pre-eclampsia and hypertension etc. in the mother and slow/inadequate growth of the fetus. Antenatal care allows for the timely management of complications through referral to an appropriate facility for further treatment. It also provides opportunity to prepare a birth plan and identify the facility for delivery and referral in case of complications. The Government of India (GoI) has a commitment under its National Health Mission (NHM)/Reproductive and Child Health (RCH)-II programme to ensure universal coverage of all births with skilled attendance, both at the institutional and at the community level and to provide access to emergency obstetric and neonatal care services for women and newborns, and thereby restrict the number of maternal and newborn deaths in the country.

Suggested schedule for antenatal visits according to National Health Mission, India are

- 1st visit: Within 12 weeks—preferably as soon as pregnancy is suspected—for registration of pregnancy and first antenatal check-up
- 2nd visit: Between 14 and 26 weeks
- 3rd visit: Between 28 and 34 weeks
- 4th visit: Between 36 weeks and term

6. LITERATURE REVIEW

NATIONAL STUDIES

A study by Bhanwar Singh, Meely Panda, Brij Mohan Vashisht, Bhumika Bha, Shasanka Shekhar Panda **(2013)** in rural block of Haryana regarding practices related to delivery and antenatal care among females was conducted on a total of 210 study subjects reveals that only 72% of females received antenatal care. Tetanus toxoid (TT) coverage was 95.7% and 4.3% females did not receive even a single dose of TT. More than half of the subjects (55%) were not consuming adequate number of Iron Folic Acid (IFA) tablets. Almost 24.7% deliveries were conducted at home and nearly 50% of deliveries were in government facility. (Bhanwar Singh1, 2013)

A cross sectional study was conducted to assess the antenatal care service utilization, delivery practices and factors affecting them in tribal area of Maharashtra. Samples were selected using cluster sampling. 210 mothers who had delivered within 1 year were interviewed. Adequate service utilization was about 64.76%. Main reasons for inadequate utilization of ANC were financial and lack of awareness. Utilization was associated with education, socio-economic status, etc. The study strongly recommends the need to provide health education to improve the utilization of ANC services. (Rege, Oct-Dec 2011)

A study on utilization of antenatal services in Rajasthan where data was observed from NFHS 92-93 also revealed that the main problem of under-utilization is embodied in the socio-economic and cultural background of the care-seekers. (Mondal, Sept 1997. 43(3).)

Another longitudinal study conducted in the rural area of north Karnataka by C.S.Metgud, S.M.Katti, M.D.Mallapur and A.S.Wantamutte, where 130 women who became pregnant during the duration of the study were included and it was observed that the literacy of women has significant bearing on utilization of antenatal care by the pregnant women. Nearly 39.52 % of pregnant women were provided with full antenatal care.

A community based cross-sectional study was carried out during August 2012 to January 2013 in the rural area of Belgaum district, Karnataka, out of 630 participants; 54.6% were 20-24 years of age, 61.6% were having secondary education, 89.8% were house wives and

91.6% were Hindus. About 69.7% were from joint family with low economic status. Almost 94.8% were registered for ANC service, 85.7% visited ≥3 times, 66.0% visited during first trimester and 42.3% visited in primary healthcare Centre. Three-fifth of the participants resided ≤ 6 Km. far from health service facilities. Education, family income, knowledge on ANC, distance of health facility from residence and transportation cost were significant contributors ($p<0.05$) of ANC service utilization (Bhandankar, Jul.- Aug. 2013).

A cross sectional study from 28 districts in 14 states of India, to study the determinants of utilization of antenatal services in rural India, with a study population of 7005 pregnant women showed that, out of these 73.9% had at least one antenatal contact with an auxiliary nurse midwife (ANM) or had visited a Government Health Facility for antenatal services or problems. There was a statistically significant reduction in the proportion of women obtaining antenatal care services with increasing age, parity, and number of living children. (Nomita Chandhiok, January/February 2006)

INTERNATIONAL STUDIES

An international study on systematic review of literature of factors affecting the utilization of antenatal care in developing countries **(December, 2007)** identified the following factors affecting antenatal care uptake: maternal education, husband's education, marital status, availability, cost, household income, women's employment, media exposure and having a history of obstetric complications. Cultural beliefs and ideas about pregnancy also had an influence on antenatal care use. Parity had a statistically significant negative effect on adequate attendance.

Statistical Analysis of Factors Affecting Utilization of Antenatal Care in Nepal by Gauri Shrestha and Ganga Shrestha **(2011)** on a study sample of 4182 EMW showed that women with low education level, those residing in rural areas and those with low socio-economic status were less likely to use number of ANC visits.

7. RATIONALE FOR THE STUDY

Maternal death is defined as the death of a woman while pregnant or within 42 days of the termination of pregnancy (delivery or abortion), irrespective of the duration and site of pregnancy, from any cause related to or aggravated by pregnancy or its management, but not due to accidents, trauma or incidental causes.

The Maternal Mortality Ratio (MMR), i.e. number of maternal deaths per 100,000 live births in India is very high. According to SRS MMR Bulletin 2011-2013, the MMR was estimated to be 167 per 100,000 live births. According to MDG, India is required to reduce MMR to 109 per 100,000 live births by 2015. India is expected to fall short of the 2015 target by 26points(http://www.in.undp.org/content/india/en/home/mdgoverview/overview/mdg5.html). Like elsewhere in the world, the five major direct obstetric causes of maternal mortality in India are hemorrhage, puerperal sepsis, hypertensive disorders of pregnancy, obstructed labor and unsafe abortions contributing to about 70% of maternal deaths in the country. Providing comprehensive Antenatal Care (ANC) and Postnatal Care (PNC); identifying complications in a timely manner, and referring women with complications after basic management to a higher center for further management helps a great deal in reducing MMR. Therefore, maximum utilization of ANC services provided by the government is very necessary to reduce MMR.

According to **DLHS 4** data, the maximum utilization of ANC services is 36% in district Mahendragarh of Haryana whereas over all utilization for state of Haryana is just 15% which is still very less. All other districts have ANC utilization almost below this percentage. According **to NFHS-3 fact sheet** mothers who had at least 3 antenatal care visits for their last birth (%),was 58.8 in Haryana whereas the women who consumed IFA for 90 days or more when they were pregnant is only 28.3 % in Haryana. Therefore, the main purpose of the study is to assess the utilization of antenatal care service in district Panchkula and Ambala of Haryana and to identify the factors affecting it.

8. RESEARCH QUESTION

- What is the utilization of antenatal services in district Panchkula and Ambala of Haryana?

9. OBJECTIVES OF THE STUDY

General Objective

- **To assess the utilization of antenatal services and factors affecting it.**

Specific Objectives

- To assess the utilization of antenatal care services by married women of reproductive age group (15-49 years).

10. METHODOLOGY

Study Design- Cross sectional retrospective study

Study area- Districts- Panchkula and Ambala, Haryana

Study population- All married women between age group 15- 49 years who have delivered in the last 6 months including the still births and deaths and are mentioned in the records present at district hospital, CHC, PHC and SC in both the districts.

Inclusion criteria

- **Case selection**- The sample will include all married women between age group 15-49 years who had delivered in the last 6 months including the still births and deaths and were mentioned in the records present at district hospital, CHC, PHC and SC in both the districts.

Exclusion criteria

- Married women below 15 years of age and above 49 years of age.
- Married women whose delivery records were not present at the district hospital, CHC, PHC and SC in both the districts.

Sampling and sampling design- Non probability purposive sampling

Study duration- Study was carried out for a period of 2 months (April- May, 2015)

Sample size- 49 women were interviewed in district Panchkula and

48 women were interviewed in district Ambala

Data collection tools- A pretested Semi structured questionnaire was used to collect data.

Data collection technique- Face to face interview by visiting households

Data collection procedure- Pretesting of the tool was done by visiting General Hospital, Panchkula and 10 women admitted in the gynecology ward who had recently delivered were interviewed. Few alterations were made in the tool after the pretest.

During data collection, at every sub center, the records of women who had delivered in the last 6 months were obtained from the ANC register maintained by the respective ANM and then these women were traced back to their homes, where face to face interview was conducted with them with the help of pretested semi structured questionnaire.

Data analysis- Simple descriptive statistics were used to analyze the data using MS- Excel.

Operational definition:

Full ANC Coverage

All those women who had completed 4 visits to the facility for routine checkup had 2 doses of TT immunization (1 dose in case of prior immunization) and about 100 IFA tablets and will have undergone physical and abdominal examination in all 4 visits would be considered fully covered.

Partial ANC coverage

All those women who had visited the health facility at least once for routine checkup will be considered partially covered.

HEALTH FACILITIES VISITED

In Panchkula:

- PHC, Pinjore
- SC, Pinjore 1
- SC, Ratpur
- CHC Kalka
- SC, Majri
- SC, Mallah
- SC, Bhoriyan
- PHC, Barwala
- General Hospital

In Ambala:

- SC, Panjokhra
- SC, Kakru
- SC, Sultanpur
- SC, Mullana
- General Hospital, Ambala city
- General Hospital, Ambala cantt

11. REPORT ON FIELD VISIT GENERAL HOSITAL, PANCHKULA, DATE – 15th APRIL, 2015

General hospital is situated in the sector-6 of Panchkula district. A field visit to the hospital was conducted to the hospital under the guidance of Dr. Puneet Gupta (Consultant, Training, SIHFW, Haryana).

The purpose of the visit was to **pretest** the questionnaire for the study to assess the utilization of ante natal care services and factors affecting them in the districts Ambala and Panchkula of Haryana.

Interacted with personnel-

- Medical officer posted in the Gynecology department
- Staff nurse and other nurses
- 10 female patients who had undergone deliveries in last 2-3 days and are admitted in the gynecology ward and their family members.

The findings observed are as follows-

- All the females questioned were above 18 years of age while the ratio of women belonging to rural and urban areas was equal.
- 7 women out of 10 were housewives, 2 were laborers and 1 was doing a private job.
- The occupation of the husband was mostly of a laborer (9 out of 10).
- Educational status of the women showed 3 graduates and 3 non literate women.
- All women had their first pregnancy above 18 years of age.
- Only 1 out of the 10 respondents did not seek antenatal care for the most recent pregnancy because she did not feel the need for it
- Except 1, all had registered for the antenatal care services in the first trimester of pregnancy.
- All those who sought antenatal care visited the health facility more than 4 times.
- The physical examination including weight, blood pressure, blood and urine sample and abdominal examination was done in all the patients at least once.
- All were supplied iron and folic acid tablets and calcium tablets from the health facility where they sought antenatal care.
- 3 out of 9 women had consumed less than 100 IFA tablets during their most recent pregnancy and all of them received at least one dose of tetanus injection.

- Counseling regarding diet and rest was done in all cases but not regarding family planning, birth preparedness and breast feeding, though breast feeding counseling was done after the delivery in all the cases
- Except 2 women, none of them was told about the complications that can occur during pregnancy and where to go in that case.

12. STUDY FINDINGS AND DATA ANALYSIS

12.1 DEMOGRAPHIC PROFILE OF RESPONDENTS

Table 1: Socio- demographic characteristics of respondents (n =97)

		District Ambala n= 43		District Panchkula n=44	
Total n = 97		**number**	**percentage**	**number**	**percentage**
	19-23	13	27.08%	15	30.61
Age	**24-28**	25	52.08%	26	53.06%
	29-33	8	16.67%	8	16.32%
	34-38	2	4.17%	-	-
Caste	**General**	13	27.08%	20	40.82%
	SC/ST	10	20.83%	19	38.78%
	OBC	25	52.08%	10	20.41%
	OTHERS				
Educational status	**non-literate**	10	20.83%	10	20.41%
	primary	5	10.42%	6	12.24%
	middle	2	4.17%	9	18.37%
	matric	16	33.33%	10	20.41%
	secondary	6	12.50%	4	8.16%
	others	9	18.75%	10	20.41%
Occupation	**House wife**	44	91.67%	41	85.71%
	Farming	1	2.08%	1	2.04%
	Government service	1	2.08%	2	4.08%
	Private service	2	4.17%	2	4.08%

Table 1 provides information pertaining to socio- demographic characteristics of 97 women of Ambala and Panchkula districts of Haryana. Half of the respondents in both districts belong to the age group 24-28 years. In Panchkula, more than half of the respondents were from the OBC category and in Ambala, majority (40 percent) were from general category. In Panchkula, approximately, one third women had completed 10 years of schooling whereas in

Ambala, women were equally distributed among illiterate, matric and higher education levels.

12.2 ANC UTILISATION

The results for ANC utilisation were analysed based on the questions asked in the questionnaire. As mentioned above ANC utilisation includes all parameters from registeration in the first trimester till the delivery.

- To begin with the women who sought ANC in Panchkula were **89.80%(44),** out of 49 and in Ambala were **89.58%(43),** out of 48 respondents.
- The women sought ANC from the following health personnels in Panchkula:

The maximum number of women saw a doctor for the antenatal care followed by the ANM and ASHA.

- In Ambala, the most popular health personnel for ANC are as follows:

Here, the maximum number of women again saw a doctor for ANC but the percentage is higher than that in Panchkula, thus, comaparitively, a lesser percentage of women visiting ANM or ASHAs.

- The registeration time for ANC in Panchkula:

There was no registeration in third trimester and maximum in first trimester.

- The registeration time for ANC in Ambala:

Here, though the registration percentage of women in first trimester is almost similar to Panchkula, but some registrations also occurred in third trimester.

- The place of receiving ANC in Panchkula:

Most of the women preferred ANM followed by civil hospital.

- The most preferred place of receiving ANC in Ambala:

The women preferred visiting a civil hospital followed by ANM for ANC.

- The number of times women received ANC in Panchkula:

According to NHM, guidelines, there sould be minimum of 4 vsits for ANC during pregnanacy. The present study rveals that maximum number of pregnant women received ANC 4 times or more during their pregnancy in Panchkula.

- The number of times women received ANC in Ambala:

Here, again the percentage of women who recdeived ANC four or more times is maximum.

ANC Check up

The data regarding 5 mandatory routines including weight, abodmen, blood pressure, urine and hemoglobin estimation during atleast 4 ANC check usp was also analysed in both the districts and the results are as follows:

1. In Panchkula district, the results are as follows:

2. The results for Ambala district are as follows:

- **Administration of TT injections**

Another important component of ANC is administration of tetanus injections during pregnancy. The respondents were asked about it and the results of both the districts are as follows:

Though, most of the women in both the districts had received either 1 or 2 tetanus injections during ANC, some women in Panchkula had received 3 or more tetanus injections.

- **Iron and folic acid tablets consumption**

Ninety three percent women in Panchkula were provided IFA tablets by the health personnel whereas 6 percent women did not receive them from health personnel. In Ambala district, this percentage was 91 and 9 respectively.

The women who consumed more than 100 folic acid tablets were 68 percent and 67 percent in Ambala.

Reasons for not seeking ANC

In Panchkula, out of 5 women who did not seek ANC, 3 gave the reason that they could not get away from family responsibilities, 1 said she could not afford transport and 1 did not feel the need of any such care.

In Ambala, all the 5 women who did not seek ANC gave the reason that they did not feel the need of any such care.

,

- **General pregnancy counselling**

In both the districts, there is a lot of difference seen regarding this parameter, especially diet and rest.

DISCUSSION

The present study states that a high number of women, almost 90%, went for ANC in both the districts for their most recent pregnancy but considering the availability of health resources, this percentage is still not up to the mark. 44.4% women in district Panchkula saw a doctor for ANC followed by ASHA workers (38%) whereas in district Ambala, 69.7% women sought ANC from a doctor followed by 23% who sought from ANM.

It was very appreciating to know that almost 84% women in Panchkula had registered for ANC in the first trimester of pregnancy and none in the third trimester. In Ambala, still 2 women registered for ANC, in the third trimester of pregnancy and 86% in first trimester.

Only 79.5% women in district Panchkula had an ANC card for their most recent pregnancy whereas in district Ambala, only 72% women had an ANC card. It was observed that distribution of ANC cards had just begun one month back in sub center (SC) Mulana in Ambala.

The most popular health facility for receiving ANC amongst women in district Panchkula was at SC from ANM followed by civil hospitals whereas in district Ambala, the most popular health facility was civil hospitals (45%) followed by both health worker/ANM (21.43%) and private hospitals {21.43%).

It was again appreciating to know that out of 44 women who sought ANC in district Panchkula, 40 women received it for 4 or more times 2 women who received it only for 2 times. In district Ambala, the pattern was almost similar with 40 women receiving it for 4 or more times.

In the routine checkup part, noticeable difference was found in urine and blood examination during all 4 visits of ANC. In district Panchkula, 90% women had undergone urine examination in the first visit but the percentage of women dropped to below 50% who had undergone urine examination in subsequent visits. An almost similar pattern was seen with blood examination during subsequent visits. In district Ambala, similar trend was seen in analysis of all 5 routines with more than 80% women undergoing all 5 routines in first visit, with percentage of women receiving the services dropping in subsequent visits. This suggests that the service providers were carrying out very few of the recommended procedures efficiently.

If we try to see the TT coverage among the study subjects, we find that almost 4.5% (5) women did not receive a single dose of TT in district Panchkula and approx. 2.33% (1) women in district Ambala did not even receive a single dose of TT

It was also observed that more than 90% women received the IFA tablets from the health facility itself, totally free of cost in both the districts but only 68% in Panchkula and 67% in Ambala consumed more than 100 tablets which is almost similar to a study done in rural block of Haryana where it was found that 68% pregnant women consumed IFA tablets.

When asked if the women were given general pregnancy counseling regarding diet and rest, family planning, birth preparedness and breast feeding practices during ANC visits, in district Panchkula, 90% women were counseled for diet and rest, 59% for family planning, 68% for birth preparedness and 61% for breast feeding. The scenario regarding general pregnancy counseling is rather poor in district Ambala where only 23% women were counseled for diet ad rest, 62% for family planning, 53% for birth preparedness and 49% for breast feeding.

The women were also asked if they were counseled regarding pregnancy complications like vaginal bleeding, convulsions, prolonged labor, severe abdominal pain and high blood pressure, the results revealed very low awareness amongst women regarding pregnancy complications and negligence on the part of healthcare providers. The healthcare providers will have to understand that counseling of the women is also an essential and vital part of ANC and providing the same will establish confidence between the health personnel and the patient.

Considering the operational definitions of full and partial ANC coverage, only **24.27**% (12 out of 44) women in Panchkula and only **34.8%** (15 out of 43) women in Ambala received full ANC during their most recent pregnancy which is in accordance with the DLFHS- 4 data.

The factors affecting ANC were found to be caste, educational status of women and their husbands, type of family, average monthly income of the family, gravid status and parity age at marriage.

The women were also asked about other factors which were supposed to affect ANC utilization like Distance from health facility, Mode of transport to reach health facility, Availability of the health personnel at health facility, Long waiting hours and Out of pocket expenditure to reach health facility. These factors were found to have no significant effects on ANC utilization in both the districts.

LIMITATIONS OF THE STUDY

- Due to time constrains and lack of manpower, visiting all the desired households was not possible, so those in the vicinity of the sub centers were visited.

- Recall bias of the respondents.

CONCLUSION

Uptake of the services provided is far from universal even in settings where they are widely available. Utilization of ANC services should be increased by enhancing awareness among females, emphasizing on counseling during pregnancy by health personnel and improving quality of services in government setups. Antenatal care plays a critical role in preparing a woman and her family for child birth by establishing confidence between the woman and her health care provider.

RECOMMENDATIONS

- Regular payment of salary to the grass root level workers (ASHA) in district Ambala, motivating them to work sincerely and efficiently.
- Ensuring that every health personnel who provide ANC understands the importance of counseling during pregnancy and provides it to every pregnant woman.
- Improvement in distribution of ANC cards in district Ambala.
- Ensuring weight, blood pressure, urine and abdomen examination and Hb estimation at every visit in accordance with NHM guidelines

ANNEXURE 1

Q1 Name of the respondent				
Q2.Age of the respondent				
Q3. Place of Residence				
Q4. Religion				
Q5. Category you belong to- a. General b. SC/ST c. OBC d. Others				
Q6. Are you a BPL card holder? Y/N				
Q7.What is the educational status				

(completed)? a. Non - literate b. Primary level c. Middle level d. Matric level e. Secondary level f. Others				
Q8.What is the occupation of respondent? a. House wife b. Farming c .Government service d. Private service e. Business f. Labor e. Others				
Q9. Family type a. Nuclear b. Joint				
Q10. What is the educational status of the husband? a. Non - literate b. Primary level c. Middle level d. Matric level e. Secondary level f. Others				
Q11. What is the occupation of husband? a. Unemployed b. Farming c. Government service d. Private service e. Business f. Labor e. Others				
Q12. What is the family income (per +)?(includes husband and wife)				
Q13. What was your age at marriage? a. Less than 18 years b. Equal to or more				

than 18 years				
Q14.What was your age at first pregnancy? a.<_18 years b. >18 years				
Q15. How many times did you get pregnant before the most recent pregnancy? (gravid) a. Never b. Once c. Twice d. More than twice				
Q16. How many children have you delivered before the most recent pregnancy? (parity) a. None b. 1-3 c. 3 or more				
Q17. Status of the pregnancy previous to most recent pregnancy a. Live birth b. Still birth c. Neonatal loss				
Q18. Did you see anyone for antenatal care for most recent pregnancy? Y/N IF YES THEN SKIP Q19				
Q19. Why did you not seek antenatal care? a. Was not aware about it. b. Could not afford transport. c. Less faith in the provider. d. Fear of community. e. Did not feel the need of any such care. f. Could not get away				

from family responsibility g. Husband did not give permission h. Long waiting hours at the health facility i. Others				
Q20. If Yes, Whom did you see? a. Doctor b. ANM/NURSE/MIDWIFE/ LHV c. Other health personnel				
Q21. When did you register for antenatal checkup? a. First trimester b. Second trimester c. Third trimester				
Q22. Do you have an ANC card? Y/N				
Q23. Where did you receive antenatal care for this pregnancy? a. Health worker/ANM b. PHC e. Civil hospital d. Private hospital e. Local practitioner				
Q24. How far is the health facility from your home?				
Q25. How long did it take you to reach the health facility?				
Q26. What was the mode of transport to reach the health facility? a. By public transport b. By own vehicle c. By foot d. Others				
Q27. Were the health personnel available at the				

health facility you visited? Y/N										
Q28.How long did you wait for the health personnel at the health facility?										
Q29. How much did it cost you out of pocket to reach the facility?										
Q30. How many times did you receive antenatal care during this pregnancy? a. One time b. Two times c. Three times d. Four times or more										
Q31. As part of your antenatal care during this pregnancy, were any of the following done at least once? a. Were you weighed? Y/N b. Was your blood pressure Measured? Y/N c. Did you give a urine sample? Y/N d. Was a sample of your blood taken for testing? Y/N e. Was your abdomen examined? Y/N	FIRST VISIT	SECOND VISIT	THIRD VISIT	FIRST VISIT	SECOND VISIT	THIRD VISIT	FIRST VISIT	SECOND VISIT	THIRD VISIT	FIR VIS
Q32. During this pregnancy, how many times did you get a tetanus Injection? a. None b. One c. Two d. Three or more										

Q33. During this pregnancy, were you given or any iron folic acid tablets by the health personnel? Y/N				
Q34. During the whole pregnancy, for how many days did you take the tablets ? a. <_100 b. >100				
Q35. Were you counseled regarding a. Diet and rest B. Family planning C. Birth preparedness d. Breast feeding practices				
Q36. During (any of) your antenatal care visit(s), were you told about the following signs of pregnancy complications? Y/N A. Vaginal bleeding? B. Convulsions? C. Prolonged labor? D. Severe abdominal pain? E. High blood pressure?				
Q37. Were you told where to go if you had any pregnancy complications? Y/N				

ANNEXURE 2

Photos taken during study

1. A CHILD BEING WEIGHED AT ANGANWADI, PINJORE

2. IEC AT SUB CENTER, PINJORE

3. MCH ROOM, PHC, PINJORE

4. ASHAS TALKING TO WOMEN IN HRG SITES (BRICK KILNS), VILLAGE PAPLOHA, KALKA

5. ANGANWADI, BANGLA COLONY, PINJORE

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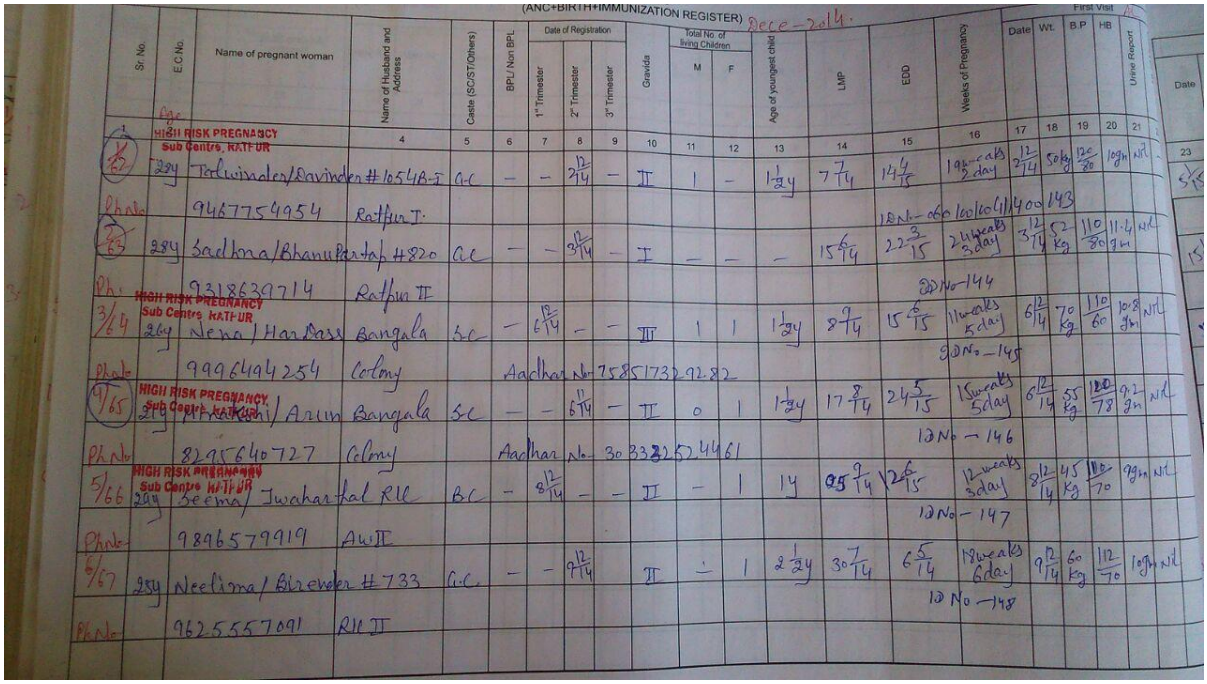
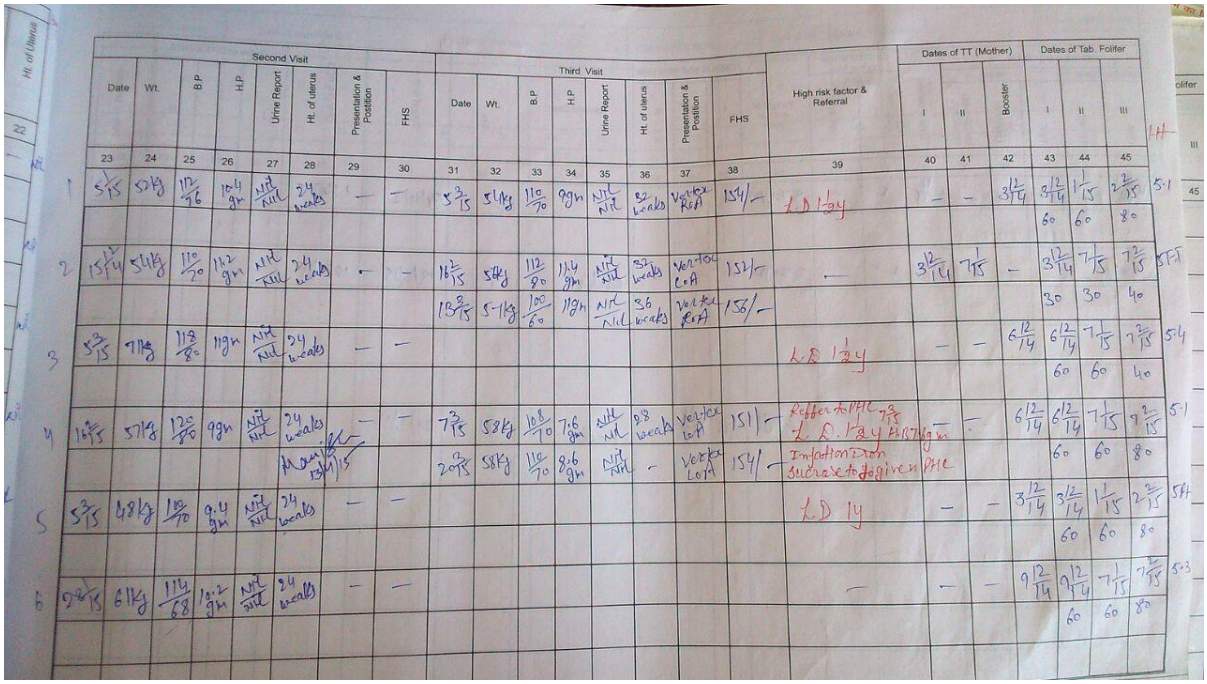
6. VILLAGE PANJOKHRA, AMBALA

7. PHC, PANJOKHRA

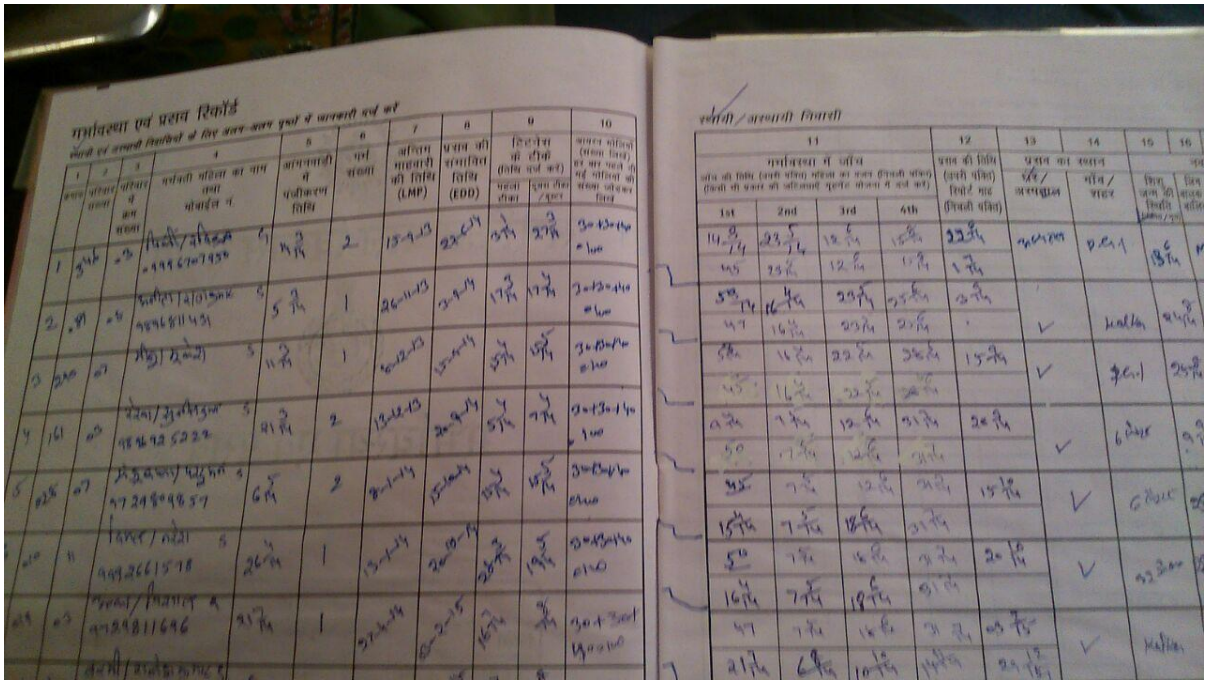
8. CHC, MULLANA

9. ANC RECORDS, SC, RATHPUR, PINJORE





10. ANC RECORDS, ANGANWADI, BITNA COLONY, PINJORE



TRAINING IMPACT ASSESSMENT OF BASIC LIFE SUPPORT (BLS) AMONGST DOCTORS AND STAFF NURSES OF TWO DISTRICTS OF HARYANA

DISTRICTS- AMBALA AND PANCHKULA

RESPONDENTS OF AMBALA

s. no.	NAME	PLACE OF POSTING	TIME OF BLS TRAINING
1.	Dr. Atul	CHC, Mullana	September, 2014
2.	Dr. Reedhi Garg	PHC, Amli	December, 2014
3.	Dr. Sanjeev Batra	CHC, Chaurmastpur	February 2015
4.	Dr. Mukesh	PHC, Pathreri	August, 2014
5.	Dr. Hemant	GH, Narayangarh	August, 2014
6.	Dr. Jaswinder	PHC, Panjokhra	October, 2014
7.	Dr. Nirmal Singh Sandoo	GH, Ambala Cantt	August, 2014
8.	Dr. Rohit Kumar	PHC, Kurli	September, 2014
9.	Dr. Sanjay	GH, Ambala City	February, 2015
10.	Dr. Vinod Saini	PHC, Pathatreri	September, 2014
11.	Gurjeet Kaur	CHC, Mullana	August, 2014
12.	Rajwinder Kaur	GH, Ambala City	July, 2014

13.	Hema	CHC, Barara	August, 2014
14.	Anjandeep Kaur	GH, Ambala City	September, 2014
15.	Rekha Sharma	GH, Narayangarh	September, 2014
16.	Navtej Kaur	GH, Narayangarh	July, 2014
17.	Rajwinder Bacchal	GH, Ambala city	September, 2014

General Findings, Ambala

- 13 out of 18 respondents had performed cases of resuscitation after the training.
- 5 respondents had not performed any case of resuscitation at all after training.
- A total of 48 patients were resuscitated by 13 respondents of district Ambala.
- Average no. of patients resuscitated by the respondents is 3-4.
- 4 out of 13 respondents had kept records of the patients on whom resuscitation was performed.
- Out of 48 patients, 8 were successfully resuscitated i.e. 16%.
- 4 respondents had done long term follow up of successfully resuscitated cases.
- 6 out of 13 respondents think that they have inappropriate place of posting because they are not been able to apply the skills they attained during the training.

* Due to unavailability of some respondents, they were interviewed telephonically.

RESPONDENTS OF PANCHKULA

s. no.	NAME	PLACE OF POSTING	TIME OF BLS TRAINING
1.	Dr. Shveta	GH 6, Panchkula	May, 2014
2.	Dr. Shallu	GH 6, Panchkula	August, 2014
3.	Dr. Jyoti Sahu	CHC, Kalka	February, 2015
4.	Dr. Manish	PHC, Pinjore	October, 2014
5.	Dr. Mohit Sharma	PHC, Barwala	March, 2015
6.	Dr. Ranjot Randhawa	PHC, Pinjore	January, 2015
7.	Poonam	GH 6, Panchkula	July, 2014
8.	Bimla Sharma	GH 6, Panchkula	August, 2014
9.	Renu Bhatia	GH 6, Panchkula	August, 2014
10.	Sharni	GH 6, Panchkula	July, 2014
11.	Mini	PHC, Pinjore	August, 2014

12.	Saroj Bala	GH 6, Panchkula	July,2014
13.	Gurmail Kaur	PHC, Barwala	September, 2014
14.	Seema	CHC, Kalka	December, 2014

General Findings, Panchkula

- 6 out of 14 respondents had performed cases of resuscitation after the training.
- 8 respondents had not performed any case of resuscitation at all after training.
- A total of 14 patients were resuscitated by 6 respondents of district Ambala.
- Average no. of patients resuscitated by the respondents is 2.
- 2 out of 6 respondents had kept records of the patients on whom resuscitation was performed.
- Out of 14 patients, 6 were successfully resuscitated i.e. 16%.
- Only 1 respondent had done long term follow up of 3 resuscitated patients.
- 6 out of 14 respondents thought that they had inappropriate place of posting because they were not been able to apply the skills they attained during the training.

QUESTIONNAIRE FOR IMPACT ASSESSMENT OF BASIC LIFE SUPPORT TRAINING

1. Name			
2. Place of posting			
3. When did you take BLS training?			
4. Do you think the training helped you in building your skills and capacity?			
5. How many cases of resuscitation have you performed after the training?			
6. Have you kept any records of such patients?			
7. How many patients were you able to resuscitate successfully?			
8. Was any long term following up done with the successful patients?			
9. Remarks			

References

- SIMKHADA B. , VAN TEIJLINGEN E.R. , PORTER M. & SIMKHADA P. (2008) Factors affecting the utilization of antenatal care in developing countries: systematic Review of the literature. Journal of Advanced Nursing 61(3), 244–260 doi: 10.1111/j.1365-2648.2007.04532.x

- Bhandankar, D. P. (Jul.- Aug. 2013). Antenatal care service utilization and contributing factors: acommunity based study in rural Belgaum, Karnataka, India. *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 25-31.

- Bhanwar Singh1, M. P. (2013). PRACTICES RELATED TO DELIVERY AND ANTENATAL CARE AMONG FEMALES IN RURAL BLOCK OF HARYANA. *International Journal of Therapeutic Applications, Volume 10*, 23-27.

- C.S.Metgud*, S. ,. (2009). Utilization Patterns of Antenatal Services Among Pregnant Women: A Longitudinal Study in Rural Area of North Karnataka. *Al Ame en J Med S c i (2 00 9)2 (1) :5 8 -6 2*.

- India, G. o. (September 2014). SRS Bulletin Sample Registeration System.

- Jalina Laishram, P. D. (March 2013). Knowledge and Practice of Ante-natal Care in an Urban Area. *Indian Medical Gazette.*

- K.Park. (n.d.). *PREVENTIVE AND SOCIAL MEDICINE, 22nd edition.*

- M.S. Kulkarni, M. N. (2008). INFLUENCE OF SOCIO-DEMOGRAPHIC FACTORS ON THE USE OF ANTENATAL CARE. *Indian J. Prev. Soc. Med. Vol. 39 No.3& 4 2008*.

- MATERNAL HEALTH DIVISON, M. O. (APRIL, 2010). *GUIDELINES FOR ANTENATAL CARE AND SKILLED ATTENDANCE AT BIRTH BY ANM's/LHV's/SN's.*

- Mondal, M. S. (Sept 1997. 43(3).). Utilization of Antenatal Care Services in Rajasthan: Observations from the NFJS. *The Journal of Family Welfare*, 28-33.

- Nomita Chandhiok, B. S. (January/February 2006). Determinants of antenatal care utilization in rural areas of India : A cross-sectional study from 28 districts (An ICMR task force study). *J Obstet Gynecol India Vol. 56, No. 1*, 47-52.

- Rege, S. S. (Oct-Dec 2011). Ante Natal Care Services Utilization, Delivery Practices and Factors Affecting Them in Tribal Area of North Maharashtra . *Indian J Community Med.*, 287-290.

- shreshtha, g. s. (2011). Statistical Analysis of Factors Affecting Utilization of Antenatal Care in Nepal. *Nepal Journal of Science and Technology 12 (2011) 268-275*.
- welfare, m. h. (2010). *Guidelines forantenatal care and skilled attendance at birth by ANM/ LHVs/SNs.*
- District Level Household and Facility Survey-4, District Fact Sheet, Panchkula (2012-13)
- District Level Household and Facility Survey-4, District Fact Sheet, Ambala (2012-13)
- National Family Health Survey- 3, Key Indicators of Haryana.