Internship Training

At

MEDIQOP MANAGEMENT SERVICES

Clinical Audit on Antenatal Care Provided For Uncomplicated Pregnancies in Healthcare Organisation

By

DR. SNEHA SINGH

PG/17/068

Under the guidance of

DR. B.S.SINGH

Post Graduate Diploma in Hospital and Health Management 2017-19

International Institute of Health Management Research

New Delhi

The certificate is awarded to

DR. SNEHA SINGH

in recognition of having successfully completed his/her Internship in the department of

Quality

and has successfully completed his/her Project on

CLINICAL AUDIT ON ANTENATAL CARE PROVIDED FOR UNCOMPLICATED PREGNANCIES IN HEALTHCARE ORGANISATION

MEDIQOP MANAGEMENT SERVICES

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

We wish her all the best for future endeavours.

Pratibha K.Prabhakar

Mediqop Management Services

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr.Sneha Singh student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at Mediqop Management Services from Feb 2019 to April 2019.

The Candidate has successfully carried out the study designated to her during internship training and his/her approach to the study has been sincere, scientific and analytical. The Internship is in fulfilment of the course requirements.

I wish him all success in all his/her future endeavours.

Dr Pradeep K Panda
Dean,
IIHMR, DELHI

Dr. B. S. Singh
Associate Professor & Associate Dean
Research, IIHMR DELHI

CERTIFICATE OF APPROVAL

The following dissertation titled "**Clinical Audit On Antenatal Care Provided For Uncomplicated Pregnancies In Healthcare Organisation**" at "**Mediqop Management Services**" is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

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CERTIFICATE FROM DISSERTATION ADVISORY COMMITTEE

This is to certify that **Dr.Sneha Singh**, a graduate student of the Post- Graduate Diploma in Health and Hospital Management has worked under our guidance and supervision. She is submitting this dissertation titled "**Clinical Audit on Antenatal Care Provided for Uncomplicated Pregnancies in Healthcare Organisation**" at "**Mediqop Management Services**" in partial fulfilment of the requirements for the award of **the Post- Graduate Diploma in Health and Hospital Management**.

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

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Associate Professor &

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IIHMR DELHI

Pratibha K.Prabhakar

Mediqop Management Services

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH, NEW DELHI

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled Clinical Audit on Antenatal Care Provided for Uncomplicated Pregnancies in Healthcare Organisation and submitted by Dr.Sneha Singh, Enrolment No. PG/17/068 under the supervision of Dr. B. S. Singh for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from Feb 2019 to April 2019 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.

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FEEDBACK FORM

Name of the Student:

Dissertation Organisation:

Area of Dissertation:

Attendance:

Objectives achieved:

Deliverables:

Strengths:

Suggestions for Improvement:

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

Signature of Organisation Mentor

(Dissertation)

Date:

Place:

ABSTRACT

OBJECTIVE: To ensure that the antenatal care provided is compliant with the evidence based guidelines, assess the content of the antenatal care, and to identify the gaps and areas of improvement in the antenatal care provided.

METHODOLOGY: A Descriptive Study was undertaken in a private healthcare organisation. Clinical audit was done. Data was collected through structured questionnaires comprising of 68 questions based on NICE recommended guidelines. Pregnant women with uncomplicated pregnancy coming to OPD for their antenatal appointments were selected as per convenience. 130 Patient Observation and Record Reviews, 130 Patient Interviews and 4 Care Provider Interviews were done.

RESULT: Antenatal appointments did not have any defined content neither any written information about appointments. No information is being given to pregnant women regarding baby development, maternity rights and benefits, active labour, new baby care, preparation for labor and birth or breastfeeding, newborn screening test, baby blues and post natal depression, postnatal self-care and Vit.K prophylaxis. Majority of women were not given any information about antenatal screenings, lifestyle considerations and the correct use of seatbelts. Body mass index was not calculated for any pregnant women, only weight of the women was recorded at each visit. Formal fetal- movement, Doppler ultrasound, cardiac anomalies, electronic monitoring of Fetal Heart Rate and after 24 weeks Ultrasound Scanning are being routinely offered. Majority of care providers do not offer Atypical red-cell alloantibodies screening in early pregnancy regardless of Rhesus-D status, OGTT was not offered again at 24-28 weeks and atypical red-cell alloantibodies screening again at 28th week. No mental

health issues were discussed with any pregnant women. Majority of care providers were not offering that External Cephalic Version to single breech pregnancy.

CONCLUSION: The antenatal care provided for uncomplicated pregnancy is only 57% compliant with the NICE guidelines. There are some major non compliances that needs to be focussed on. The visit plan is not structured. The frequency of visit is also much more than recommended. This leads to unnecessary wastage of scarce resources. Care provider have a very limited time to counsel the patient and to provide all the necessary information. Thus pregnant women is not able to take an informed decision. Measure for improving quality of antenatal care

ACKNOWLEDGEMENT

I am so grateful Mediqop management services for providing me this opportunity to work in healthcare organisation as part of my dissertation project. This project have provided me an extensive learning of the coordinated working of the hospital. The exposure I have gained has been tremendous and has left me with an urge to learn more.

I would like to thank Mrs. Pratibha K. Prabhakar, Mediqop Management services for giving me the opportunity to do my internship.

I would also like to thank Dr. Mohan P.S.Kohli, Mediqop Management services for believing in my capabilities and pushing me to the next level. Without his valuable guidance and consistent support, this project would not be completed.

I am also grateful to my mentor Dr. B.S. Singh, Associate Professor & Associate Dean (Research), International Institute of Health Management Research, New Delhi for his valuable guidance and constant support all along the course of my internship.

Last but not the least, I offer my regard and blessings to all those who supported me in any way during this project.

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LIST OF ABBREVIATIONS

NICE: National Institute for Health and Care Excellence

OPD: Outpatient Department

OGTT: Oral Glucose Tolerance Test

WHO: World Health Organization

WKS: Weeks

BMI: Body Mass Index

NP: Nulliparous

STI: Sexually Transmitted Infections

HIV: Human Immunodeficiency Virus

AIDS: Acquired Immunodeficiency Syndrome

TB: Tuberculosis

Hb: Haemoglobin

ANC: Antenatal Care

CR: Crown-Rump

FHR: Fetal Heart Rate

S-F: Symphysis Fundal

USG: Ultrasonography

LIST OF APPENDICES

Section I

ORGANISATIONAL PROFILE

ORGANISATIONAL PROFILE

Mediqop Management services provide high quality expertise to several hospitals whatever be their size and requirements. They have an expert experienced team committed towards the objective to assist healthcare organizations grow by providing them advisory and consulting services for quality enhancement, operations, supply chain management, medico-legal support, human resource management, it, financial management & capacity building etc. They provide end to end business growth support including business analytics, banding, marketing and compliance to rules, regulations & standards.

Since healthcare is an interplay of forces both private and government, they also provide services for enhancing reach through public private partnerships through linkages with the public health system.

Mediqop Management services ensures universal quality healthcare for all which is sustainable, equitable and future proof while being accessible, acceptable and affordable for all.

MISSION

To empower our clients with expertise that makes them cohesive & interdependent leading to long term growth & success in an ever-changing healthcare scenario provide practical solutions in healthcare to overcome

VISION

To be a leader in providing end to end solutions to healthcare organizations”

VARIOUS SERVICES PROVIDED INCLUDES MANAGEMENT OF:

- Quality: Accreditation Consultancy: NABH/NABL/JCI/IPHS/ISO. Developing SOPs, Policies & Procedures, Tariffs. Benchmarking Analysis, Organisational assessment audits, Gap Analysis etc., CGHS/ECHS guidance and inspection.

- OPERATIONS: Management Restructuring, Hospital Equipment Management (Biomedical/ MEP/ HVAC), Information Technology Management, Human Resource Management, Stationery & Signage Planning, Inventory Management, Operational and Retainer Management Consulting, Hospital Commissioning, Strategy Consulting, Telemedicine Consulting, Customer Relationship Management Consulting, Outsource Department Planning and Consulting and Franchisee Management Consulting

- PROJECT SERVICES: Diagnostic centre, Polyclinics, Dental clinics, Pharmacy setups and Infrastructure Audits

- BUSINESS DEVELOPMENT & MARKETING MANAGEMENT: Social Media and Outdoor Media

- LEGAL SERVICES: License and statutory consulting, Legal Consulting, Human resource, Medico-legal, Financial legal, Agreement advisory, Hospital Operations & Management, Doctors & Employees, Outsource agencies, Vendor agreements, Service contracts

- FINANCIAL AND PLANNING SERVICE: Due Diligence Services, Mergers & Acquisitions, Transaction Advisory, Validating Business Plans, Preparing Detailed Project Reports, Debt & Equity Consulting, Internal Financial Control, Internal & External Audit, Cost Accounting & Efficiency consulting, Review/Develop Annual Plan and Budgeting.

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- PUBLIC HEALTH: Public Private Partnership, Documentation/Process management., Monitoring and Evaluation, Strategic Management, Capacity Building, Skill Development, Certificate Courses -BLS/ACLS/ICN etc., Class room Trainings

Section II

DISSERTATION

CHAPTER 1

INTRODUCTION

Of all the maternal deaths in developing countries almost 80% of them are due to direct maternal cause as stated by WHO. These direct causes are often largely preventable by timely recognition of the problem, timely decision on seeking care and receiving adequate and appropriate care. Antenatal care is the focuses on the health status of pregnant women and monitors the foetal development to assure the well-being of both mother and the baby. The health of new-born largely depends upon antenatal care in a pregnant female.

1000 days of child life are important milestone for the overall growth of the child thus nutritional screening becomes an important aspect of the antenatal care. Antenatal care not only takes into considerations the medical care but also the social and mental aspects of maternal health.

There exists a common belief that maternal health can be improved by enhancing the coverage of reproductive health service and this belief often ignores the importance of quality of care provided.

Clinical audit is a quality improvement tool. It focuses on the structure, process and outcome of care and evaluates them against explicit criteria. This explicit criterion is a set of clinical evidence based guidelines. Clinical audits helps in assessing the level of performance and to identify gaps and areas of improvement.

Uncomplicated pregnancy refers to pregnancy with no known antenatal complications and no hospitalization during pregnancy. Antenatal complications includes gestational diabetes mellitus, pre-eclampsia, hypertensive disorders, antepartum haemorrhage, placental abruption, venous thromboembolism.

CHAPTER 2

NICE GUIDELINES ON ANTENATAL CARE FOR UNCOMPLICATED PREGNANCY

Nice guidelines are developed by National Institute for Health and Care Excellence. They are based on the current available evidences. The NICE guideline for antenatal care for uncomplicated pregnancy includes the following elements of care:

- PRINCIPLE OF CARE: Pregnant women should be encouraged, supported to access antenatal care ideally by 10^{th} week. The healthcare care system should take measures to create awareness among masses about the need and importance of the antenatal care. Secondly there should be continuity of care throughout the pregnancy. The care provider need to create a comfortable environment and also give opportunity to the pregnant female take informed decisions. The women's decision should be respected, even when this is contrary to the views of the healthcare professional.

- INFORMATION AND SUPPORT: Antenatal information should be given to all pregnant women. This includes information on folic acid supplementations life style considerations, antenatal screenings and anomaly scans- their risks and benefits, baby development, place of birth, pregnancy care pathway, breast feeding, mental health issues, preparation of labour and birth, recognition of active labour, care of new born, vitamin K prophylaxis, new-born screenings, awareness about baby blues and postnatal depression. In case the pregnancy extends beyond 38 weeks then information should be given regarding options for management of prolonged pregnancy. All communication with the pregnant

should be in a language that is easy for her to understand and must also take into account special needs like physical, sensory or learning disabilities.

- APPOINTMENT AND RECORDS: According to NICE guidelines a total no. of 10 appointments are adequate for a nulliparous with uncomplicated pregnancy and a schedule of 7 appointment are adequate for a parous with uncomplicated pregnancy. The women should be included when deciding schedule of appointment and also they should be given a written format regarding the schedule, timing and content of each appointment. Maternity records should be well structured and standardised. Pregnancy lady should carry their own records.

- CLINICAL EXAMINATION: Weight and BMI monitoring should be included in antenatal appointments. Gestational age assessment should be offered early in the pregnancy.

- LIFESTYLE CONSIDERATIONS: Information should be given regarding alcohol, exercise and sexual intercourse, food acquired infections, nutritional supplements, work, travel, smoking, medicines and complimentary therapies.

- MANAGING COMMON SYMPTOMS: Like nausea and vomiting, dyspepsia, constipation, haemorrhoids, varicose veins, backache.

- MONITORING FETAL GROWTH AND WELLBEING

- PLANNING PLACE OF BIRTH : Discuss the choice of place of birth

- BREECH PRESENTATION AT BIRTH: NICE recommends that all women who have an uncomplicated singleton breech presentation at 36 weeks should be offered external cephalic version. The exception to this includes women who is in labour or women with uterine scar or abnormality, fetal compromise, ruptured membrane, vaginal bleeding and medical condition.

- PREGNANCY AFTER 41 WEEKS: Induction of labour should be offered beyond 41 weeks. Before formal induction, vaginal examination for membrane sweeping should be offered to women.

- SCREENING: Screening for anaemia, blood group, Down syndrome, infections, haemoglobinopathies, pre eclempsia, pre-term labour and placenta praevia and structural fetal anomalies should be undertaken.

- SCHEDULE OF APPOINTMENTS: schedule of appointment for both

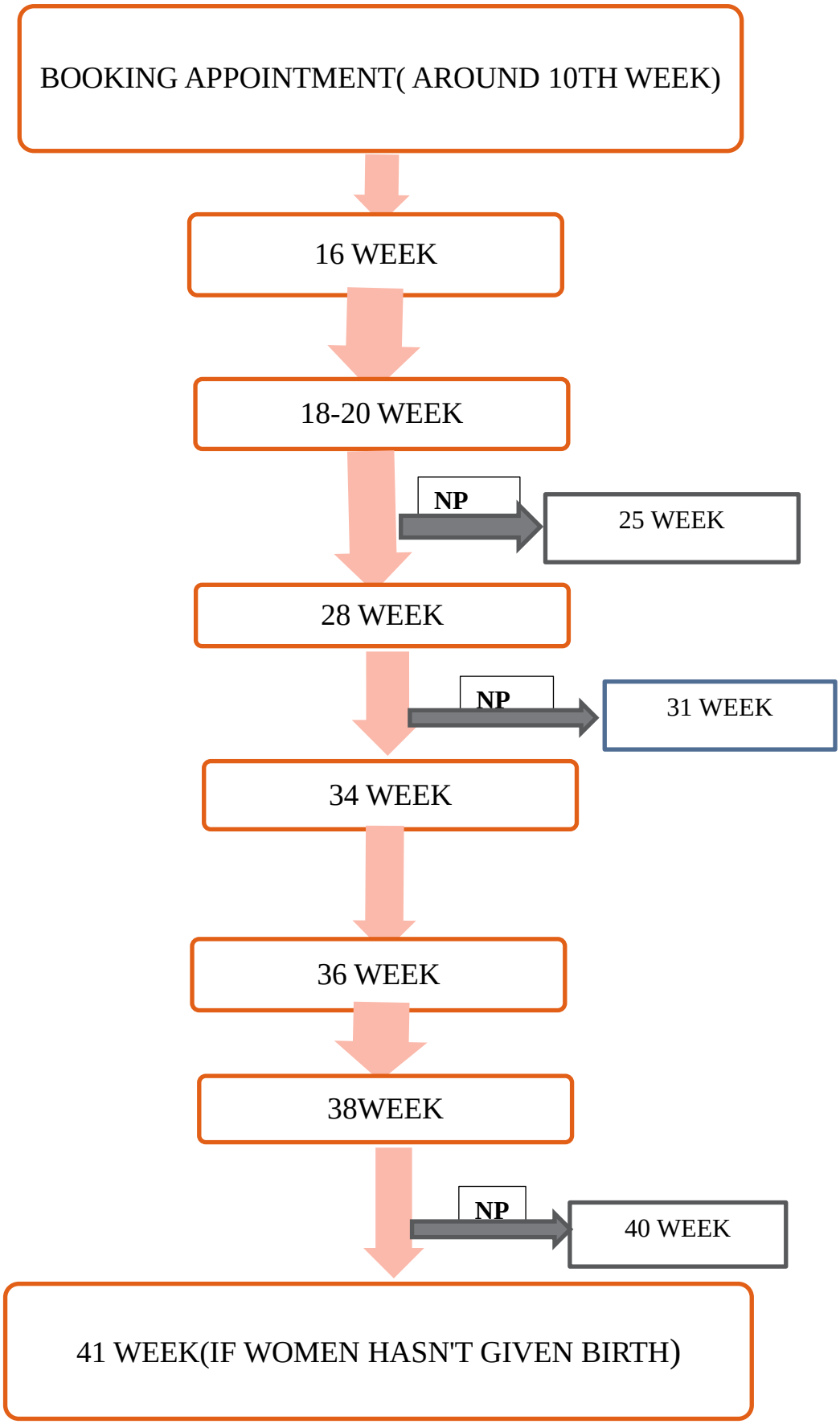


FIGURE: 2.1 SCHEDULE OF APPOINTMENTS

CHAPTER 3

REVIEW OF LITERATURE

Leading cause of maternal mortality includes haemorrhage, infection, eclampsia and prolonged and obstructive labour among other causes. Antenatal care thus helps in birth preparedness and complication readiness.

Adverse outcomes of pregnancy are associated with risk factors such as obesity, smoking, diabetes, hypertension, substance misuse or domestic abuse.

Antenatal care optimise maternal and foetal health, offers maternal and foetal screenings, to improve women's experience of pregnancy and birth and detection of pre-exiting conditions that may complicate pregnancy.

ANC provides required level of care for the mother and allows for identification of complications of pregnancy in the mother and to identify the growth deficit if any in the foetus. Retrospective studies in countries like Zimbabwe, India gave evidence that absence of antenatal care visits was an important risk factor for maternal death.

Antenatal care also provides an opportunity to address reproductive health concerns such as family planning and STI, as well as other illnesses and conditions including HIV/AIDS, Malaria, and TB.

The current antenatal care is backed up with advanced biomedical and biochemical screenings mostly aimed at improving the outcomes of the pregnancy. The older traditional concept of too many antenatal visits need to change. The appointments need to be less in frequency while focusing more on the effectiveness and quality of care.

According to WHO Antenatal care randomised controlled trial, no clinical detriment was found when median number of visits for study group was less in comparison with the those for the controls. The number of visits were clinically and economically justified and also study group were as satisfied as those in the control group. In a developing country this would mean the much needed scarce resources can be redistributed to more effective care.

Ante natal care provider must ensure that that all aspects of evidence based care regime are included so as to provide a safe delivery experience and healthy mother and child.

Thus quality of care plays a vital role in ensuring that care is effective, compliant and maintains continuity.

CHAPTER- 4

AIM AND OBJECTIVES

AIM

- To improve the antenatal care provided for uncomplicated pregnancies in healthcare organisation.

OBJECTIVE

- To ensure that the antenatal care provided is compliant with the evidence based guidelines.
- To assess the content of the antenatal care.
- To identify the gaps and areas of improvement in the antenatal care provided.

CHAPTER- 5

RESEARCH METHODOLOGY

TITLE OF THE STUDY:

Clinical audit on antenatal care provided for uncomplicated pregnancies in healthcare organisation

TARGET POPULATION:

Pregnant women with uncomplicated pregnancy coming to OPD for their antenatal appointments. Uncomplicated pregnancy refers to pregnancy with no known antenatal complications and no hospitalization during pregnancy.

TOTAL POPULATION:

186 based on the average number of deliveries in 2 months

STUDY DESIGN:

Descriptive Study

SAMPLE POPULATION:

Sample size was calculated with 95% confidence interval and p value of 0.05 with the help of an app on sample size calculators.

- 130 Patient Observation And Record Reviews
- 130 Patient Interviews
- 4 Care Provider Interviews

SAMPLING TECHNIQUE:

Convenience Sampling.

STUDY TOOL:

Data was collected through structured questionnaires comprising of 68 questions based on NICE recommended guidelines for antenatal care for uncomplicated pregnancies.

TIME FRAME:

Orientation for NABH standards – February 2019

Data was collected over a period of 2 months – March and April.2019

Data analysis and report writing – May 2019

CHAPTER- 6

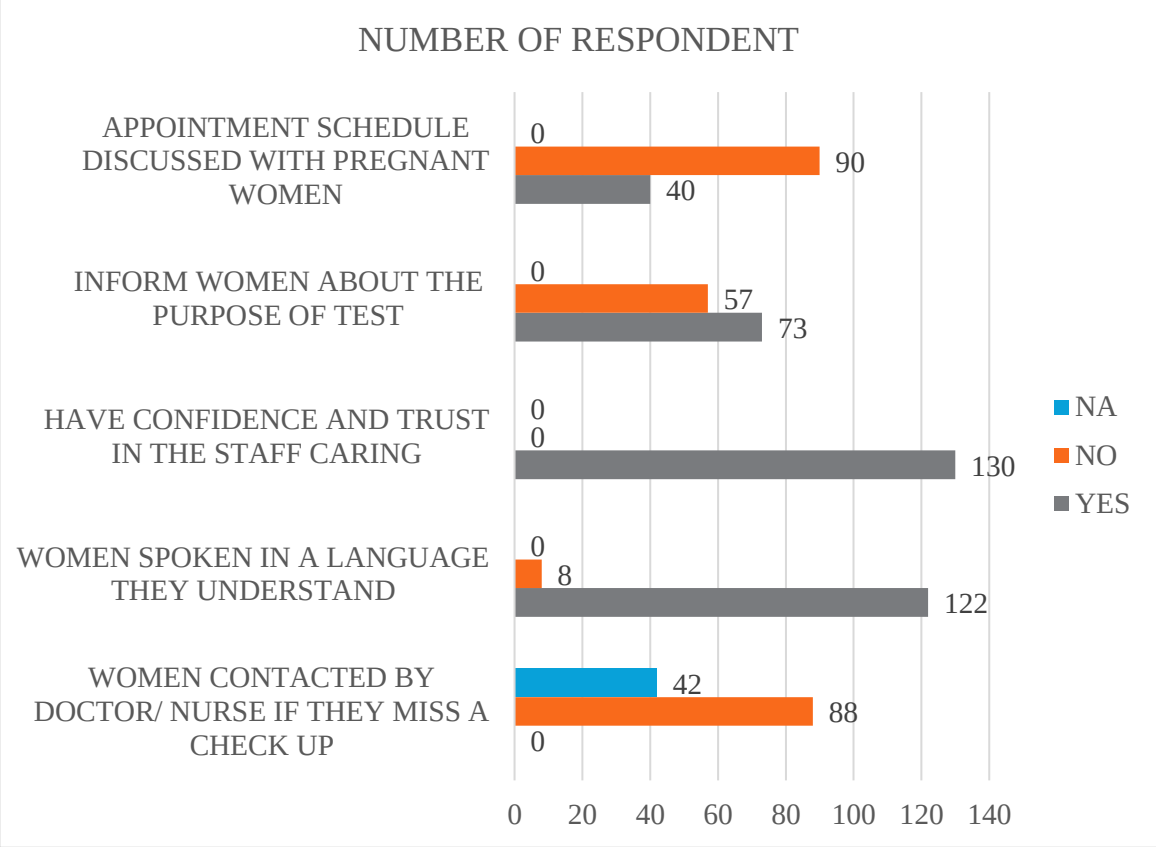
ANALYSIS AND INTERPRETATION

PATIENT INTERVIEW

130 patients were interview and compliance rate was calculated based on the responses for each guideline. As shown in the table 6.1

Table 6.1: COMPLIANCE RATE BY PATIENT INTERVIEW

GUIDELINES	YES	NO
WOMEN CONTACTED BY DOCTOR/ NURSE IF THEY MISS A CHECK UP	0	100%
WOMEN SPOKEN IN A LANGUAGE THEY UNDERSTAND	94%	6%
HAVE CONFIDENCE AND TRUST IN THE STAFF CARING	100%	0
INFORM WOMEN ABOUT THE PURPOSE OF TEST	42%	58%
APPOINTMENTS SCHEDULE DISCUSSED WITH PREGNANT WOMEN.	31%	69%



Total N= 130

Figure: 6.1 NUBER OF RESPONDENTS

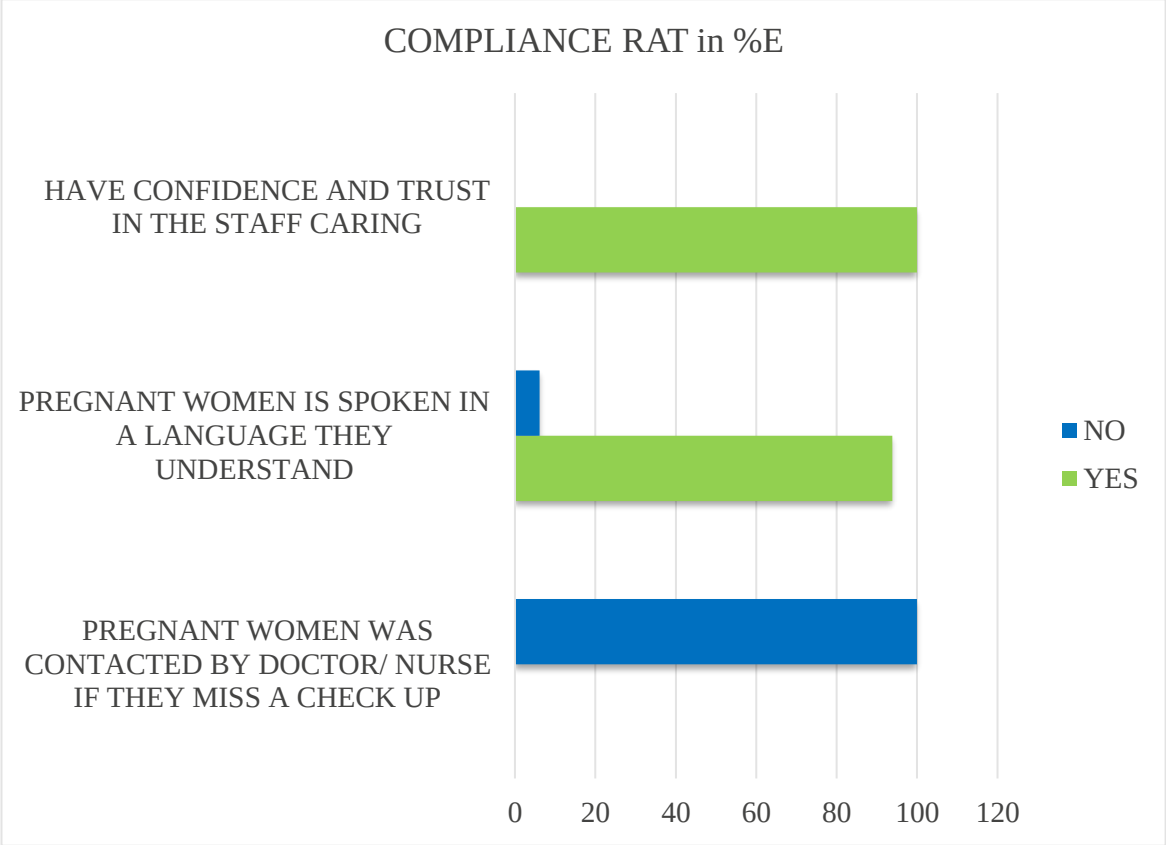


Figure: 6.2 PRINCIPLE OF CARE COMPLIANCE

INTERPRETATION

- None of the patient was contacted when they missed their appointment. It is in contrast to the recommended guideline. Under principle of care the pregnant women should be encouraged and supported to access antenatal care.
- The primary reason evident in this is that no appointment schedule and record is being maintained in the hospital. Thus it no way of tracking pregnant women.
- Majority of the pregnant women were spoken in language they would understand.
- All the pregnant women had confidence and trust in the staff caring for them

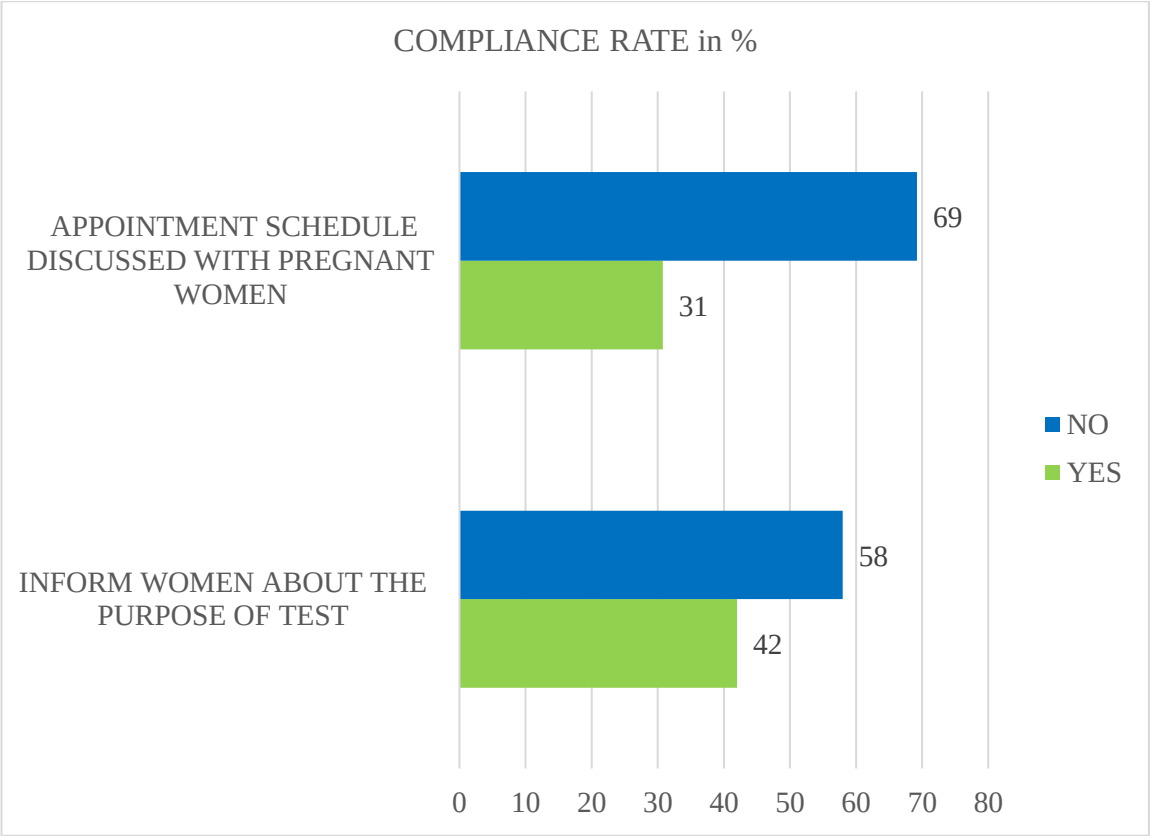


Figure: 6.3 INFORMATION AND SUPPORT COMPLIANCE

INTERPRETATION

- With most of the women appointment schedule was not discussed. They had to attend appointment as per the protocol.
- 58% of the pregnant women were not given information about the test before they were performed. They were not offered to make an informed choice decision which is in contrast to the NICE recommended guidelines.

CARE PROVIDER INTERVIEW

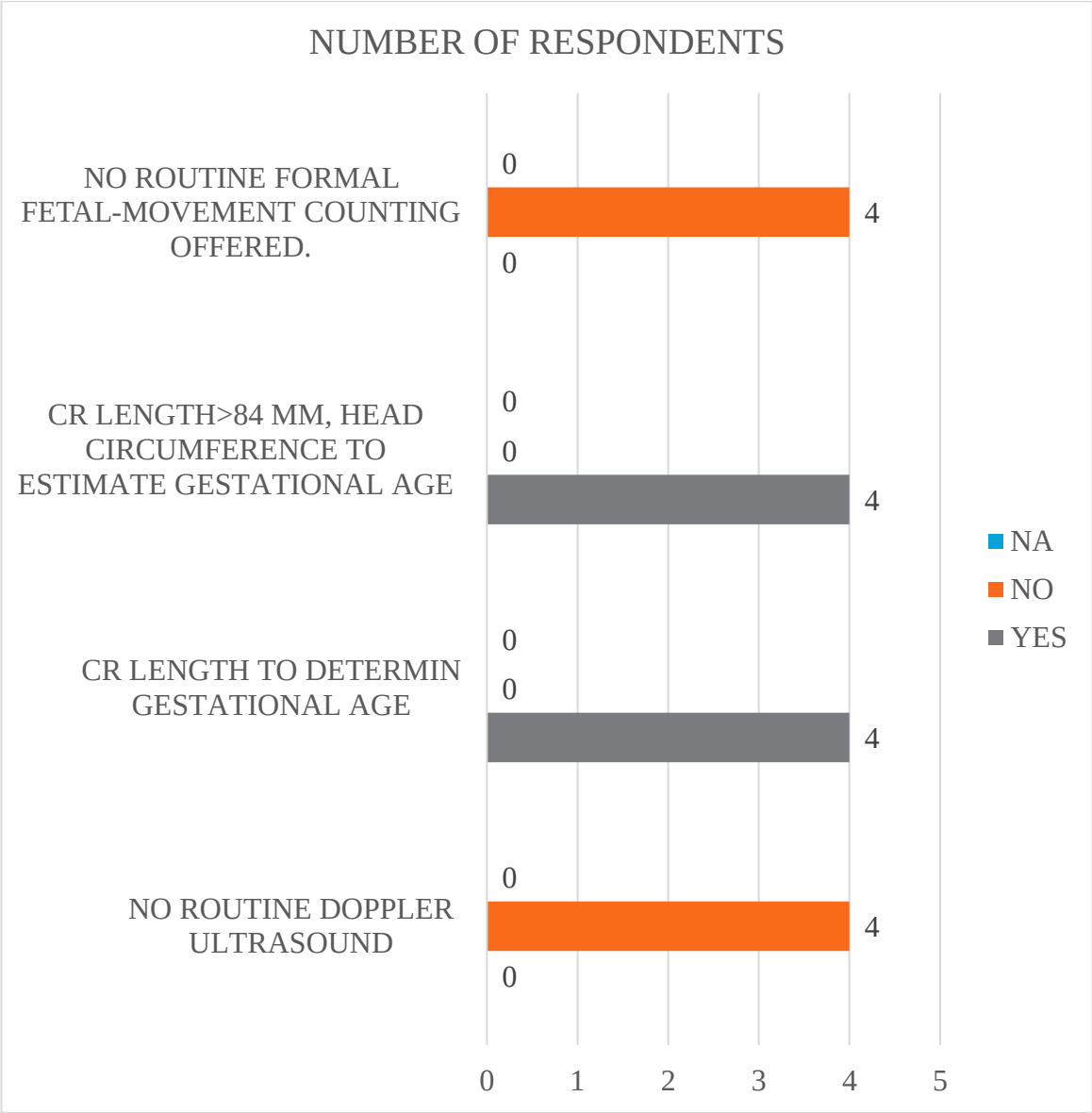
4 care providers were interview and compliance rate was calculated based on the responses for each guideline. As shown in the table 6.2

Table 6.2: COMPLIANCE RATE BY CARE PROVIDER INTERVIEW

GUIDELINES	YES	NO
NO ROUTINE DOPPLER USG	0	100%
CR LENGTH TO DETERMINE GESTATIONAL AGE	100%	0
CR LENGTH >84 MM,USE HEAD CIRCUMFERENCE	100%	0
NO ROUTINE FORMAL FETAL-MOVEMENT COUNTING	0	100%
SINGLETON BREECH PREGNANCY AT 36 WKS OFFERED EXTERNAL CEPHALIC VERSION	25%	75%
NO ROUTINE USE OF ELECTRONIC FHR MONITORING	0	100%
NO ROUTINE USE OF USG AFTER 24 WKS	0	100%
IN UNCOMPLICATED PREGNANCIES INDUCTION OF LABOUR IS OFFERED BEYOND 41 WKS.	75%	25%
PRIOR TO FORMAL LABOUR INDUCTION, VAGINAL EXAMINATION FOR MEMBRANE SWEEPING DONE	100%	0
FROM 42 WKS IN DECLINED INDUCTION OF LABOUR INCREASED ANTENATAL MONITORING DONE	75%	25%
NO ROUTINE SCREENING FOR CARDIAC ANOMALIES	0	100%
COMBINED TEST OFFERED	100%	0

Table 6.2 continued

GUIDELINES	YES	NO
WHEN NUCHAL TRANSLUCENCYIS NOT POSSIBLE, SERUM SCREENING IS DONE	100%	0
ATYPICAL RED-CELL ALLOANTIBODIES SCREENING AGAIN AT 28 WEEKS	25%	75
SYPHILIS SCREENING AT EARLY STAGE	100%	0
USG ROUTINELY OFFERED BTW 18 WKS & 20 WKS	100%	0
PARTICIPANT-LED ANTENATAL CLASSES	100%	0
S–F HEIGHT MEASURED & RECORDED AT EACH ANC VISIT FROM 24 WKS	100%	0
FETAL PRESENTATION ASSESSED BY ABDOMINAL PALPATION AT 36 WEEKS OR LATER	100%	0
SUSPECTED FETAL MALPRESENTATION IS CONFIRMED BY US ASSESSMENT.	100%	0
ROUTINE ANTENATAL ANTI-D PROPHYLAXIS TO ALL RHESUS D-NEGATIVE WOMEN	100%	0
ATYPICAL RED-CELL ALLOANTIBODIES SCREENING IN EARLY PREGNANCY	25%	75%
WOMAN IS RHESUS D-NEGATIVE, OFFER PARTNER TESTING	100%	0



Total N= 4

Figure: 6.4 NUMBER OF RESPONDENTS

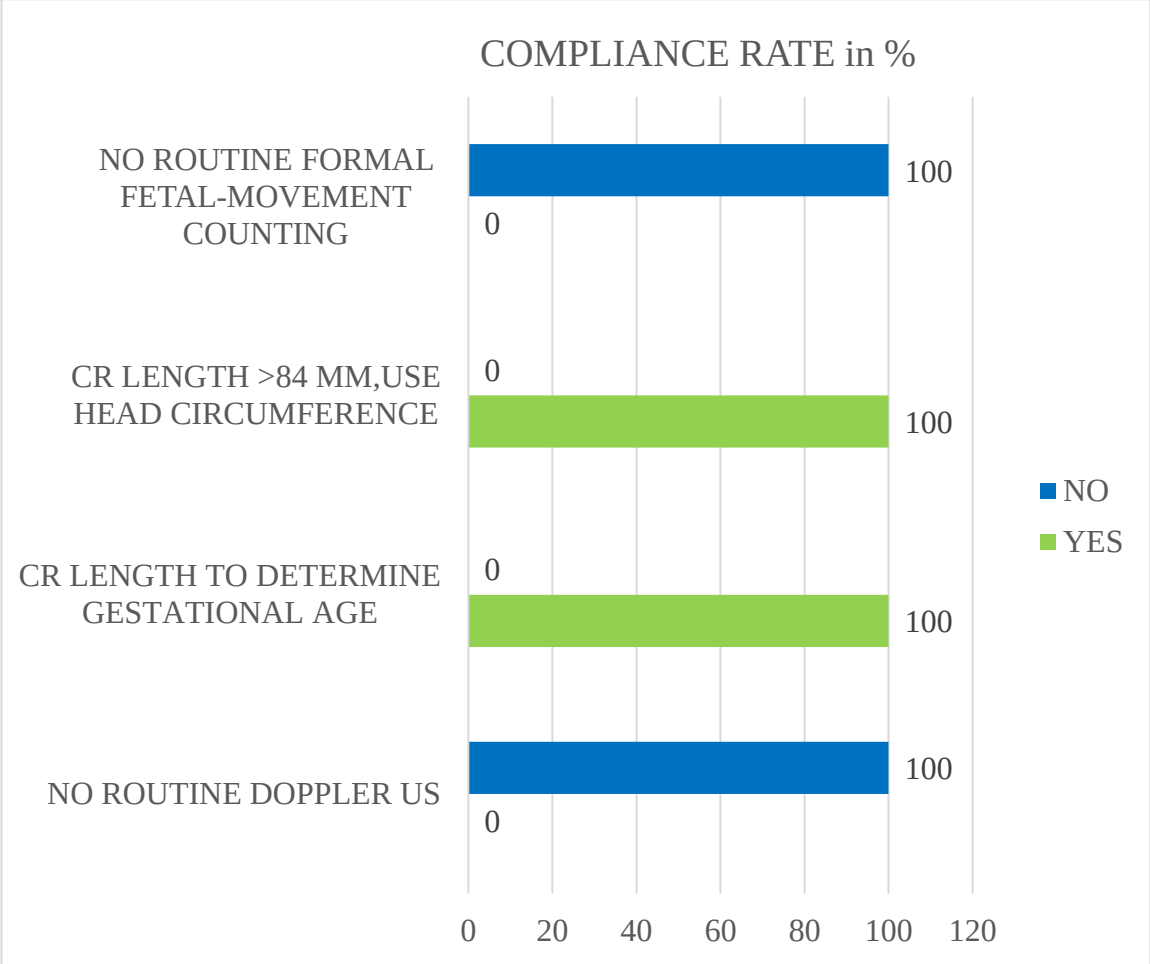
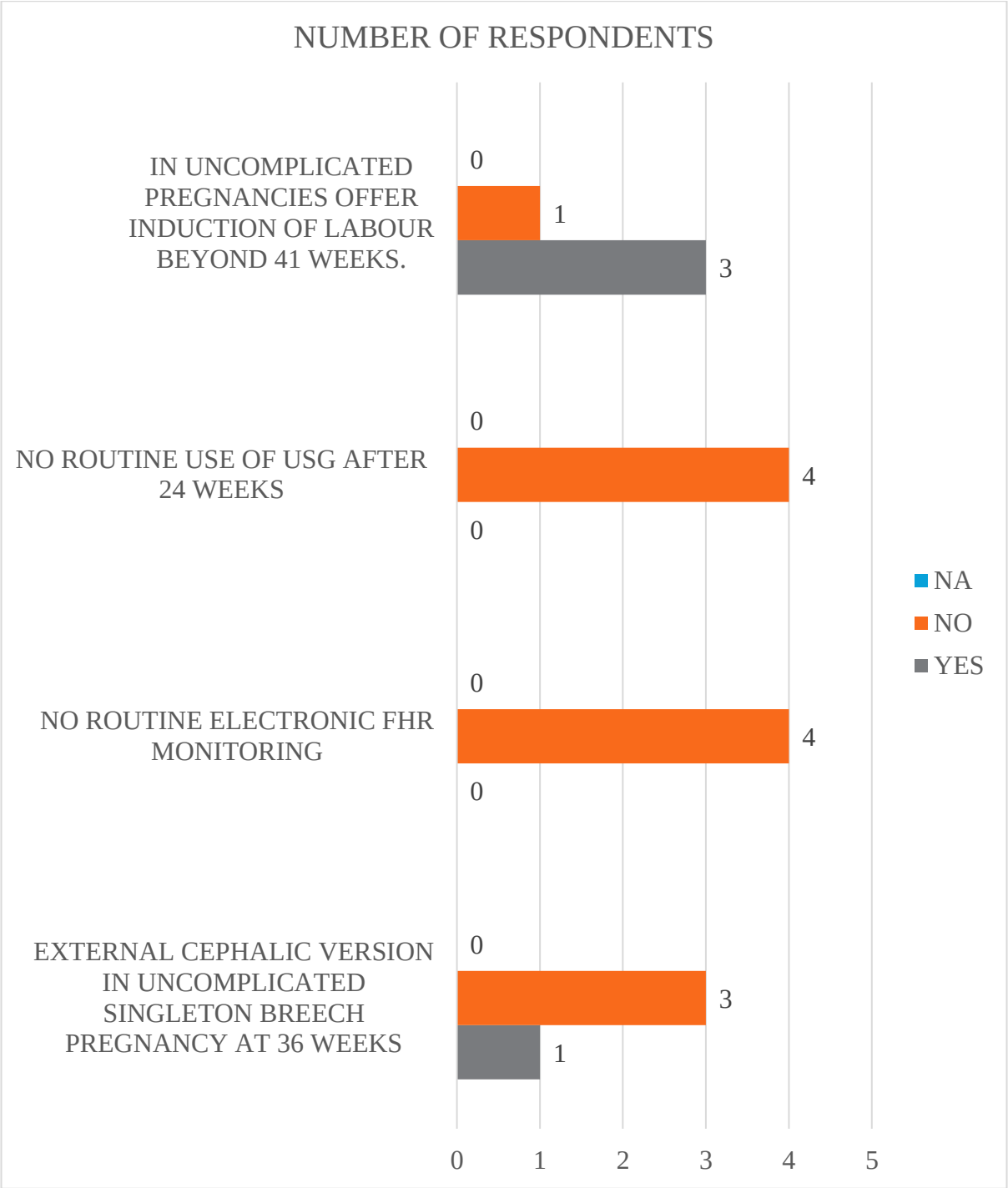


Figure: 6.5 Clinical Examinations and Screening Compliance

INTERPRETATION

- Formal fetal- movement and routine Doppler ultrasound are routinely offered which is in contrast to the recommendation.
- All care provider to determine the gestational age by Crown-Rump length, except in case where Crown-Rump length is more than 88mm then head circumference is used. This is same as recommended by the NICE guidelines.



Total N=4

Figure: 6.6 NUMBER OF RESPONDENTS

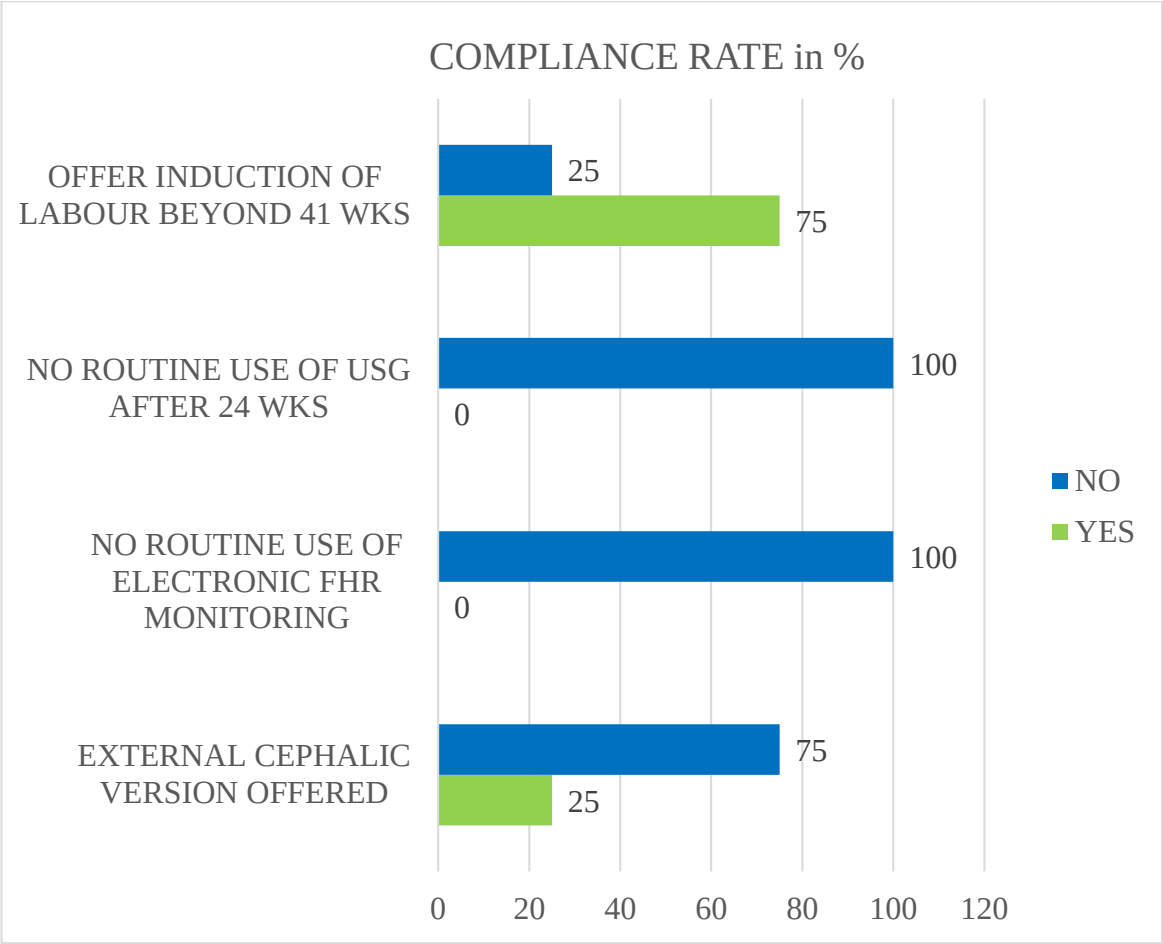
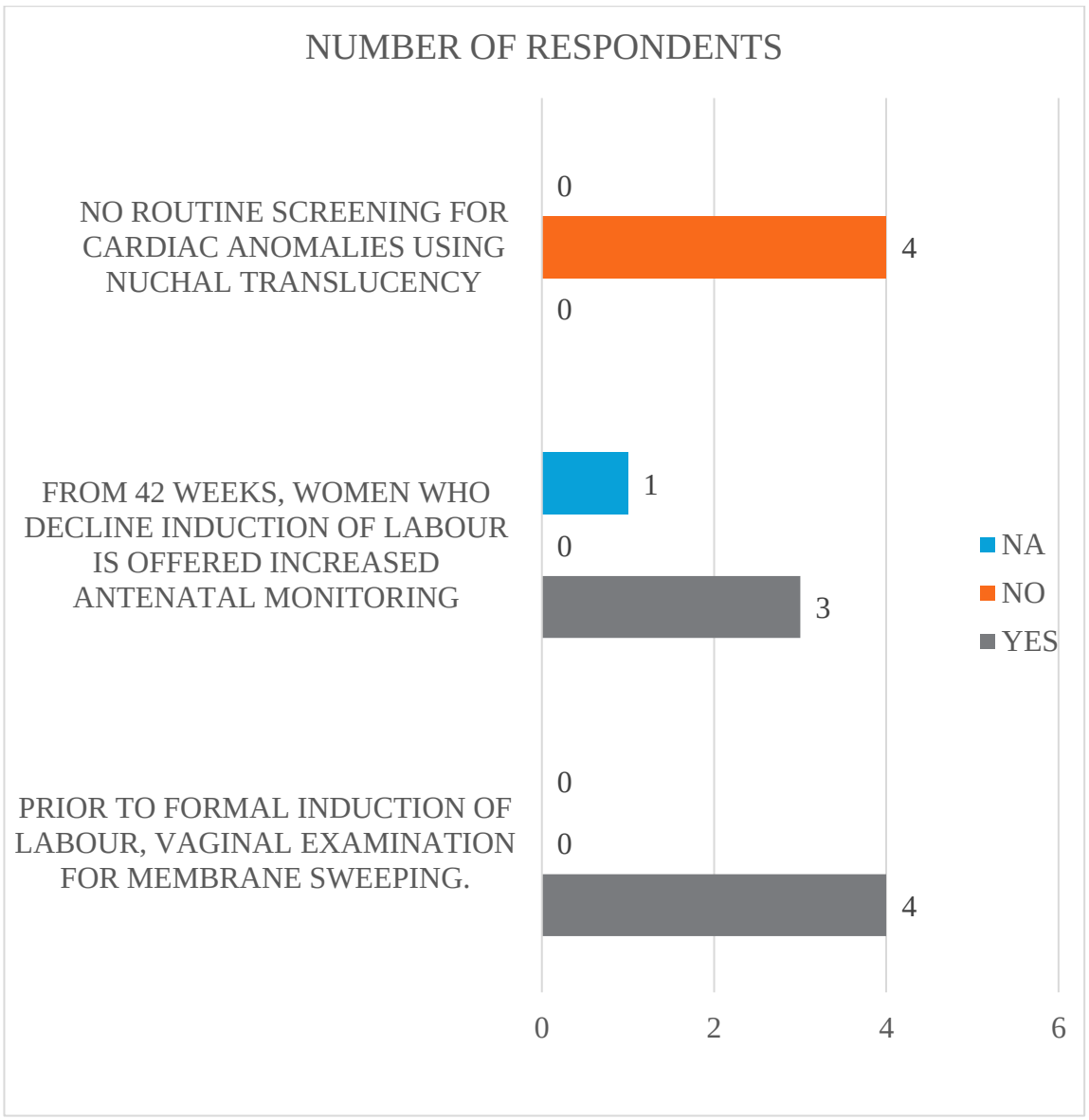


Figure: 6.7 Monitoring Growth and Fetal Wellbeing Compliance

INTERPRETATION

- Almost 75% care providers believe that External Cephalic Version should not be offered to single breech pregnancy which is in contrast to the recommendations.
- Almost all care provider do monitoring Fetal Heart Rate electronically and Ultrasound Scanning after 24 weeks is done routinely. This is in contrast with the recommended guidelines.



Total N=4

Figure: 6.8 NUMBER OF RESPONDENTS

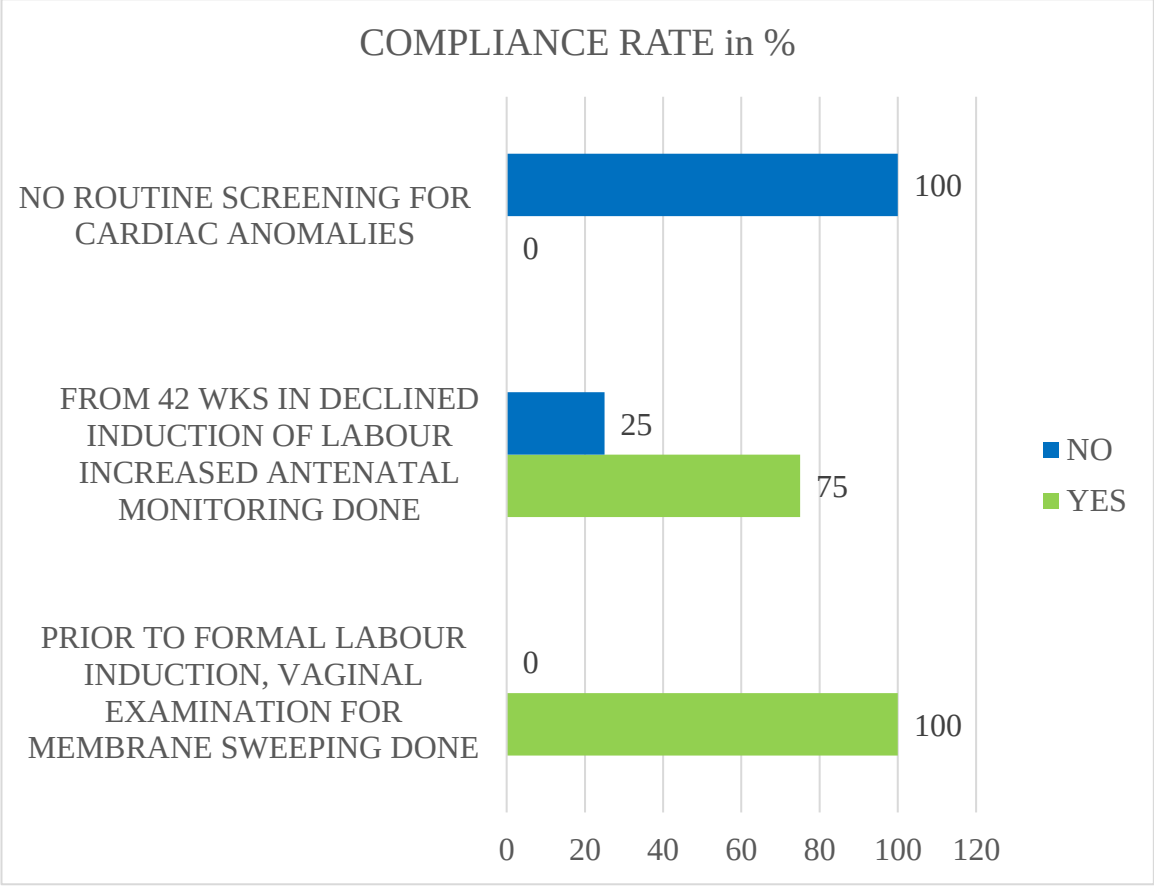
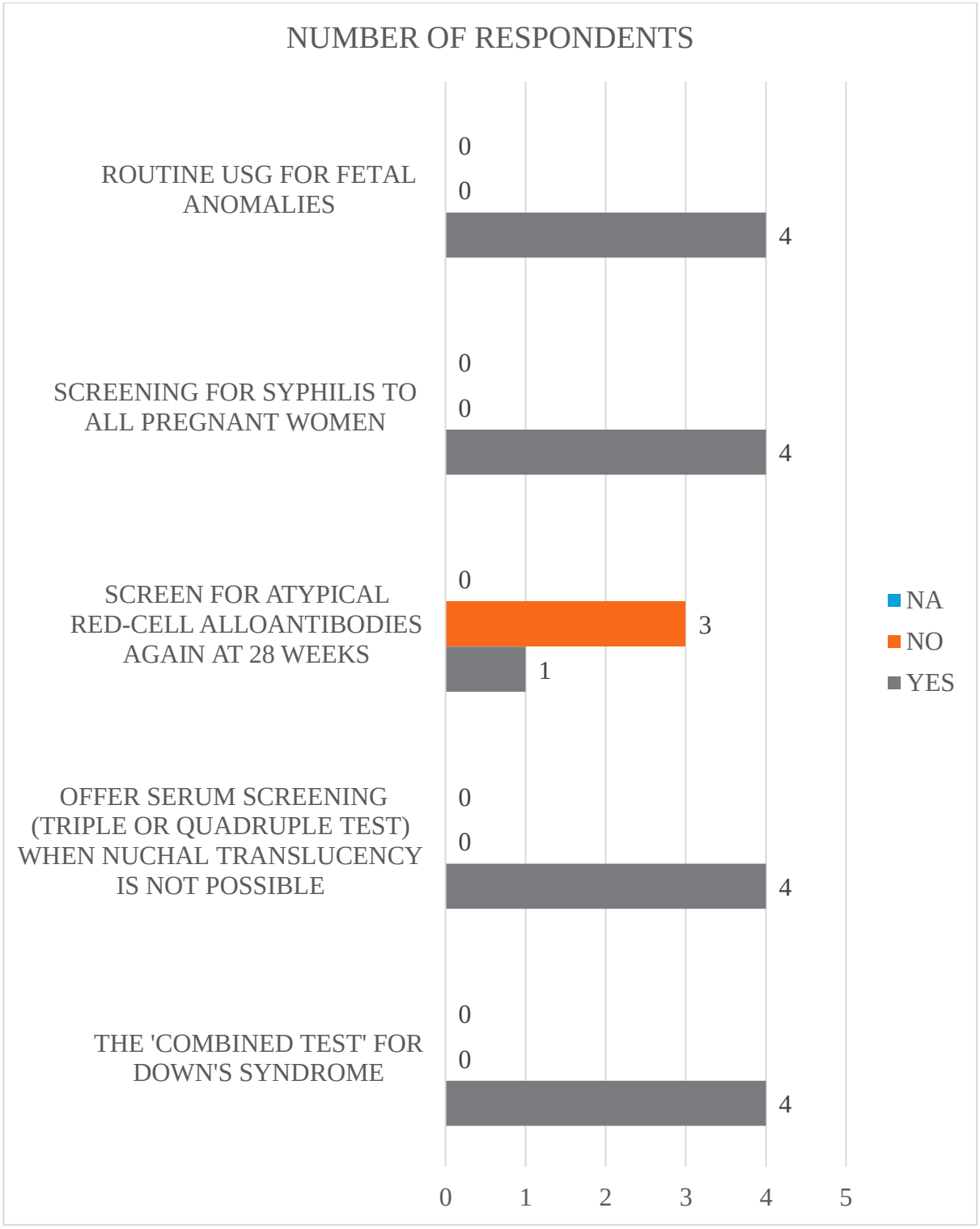


Figure: 6.9 Monitoring Growth and Fetal Wellbeing Compliance

INTERPRETATION:

- All care providers offer screening for cardiac anomalies routinely which is in contrast to the guidelines.
- Majority of care provider increase monitoring in case pregnant women decline induction of labor from 42weeks as recommended.
- Membrane sweeping is done prior to formal induction of labor as recommended by the nice guidelines.



Total N=4

Figure: 6.10 NUMBER OF RESPONDENTS

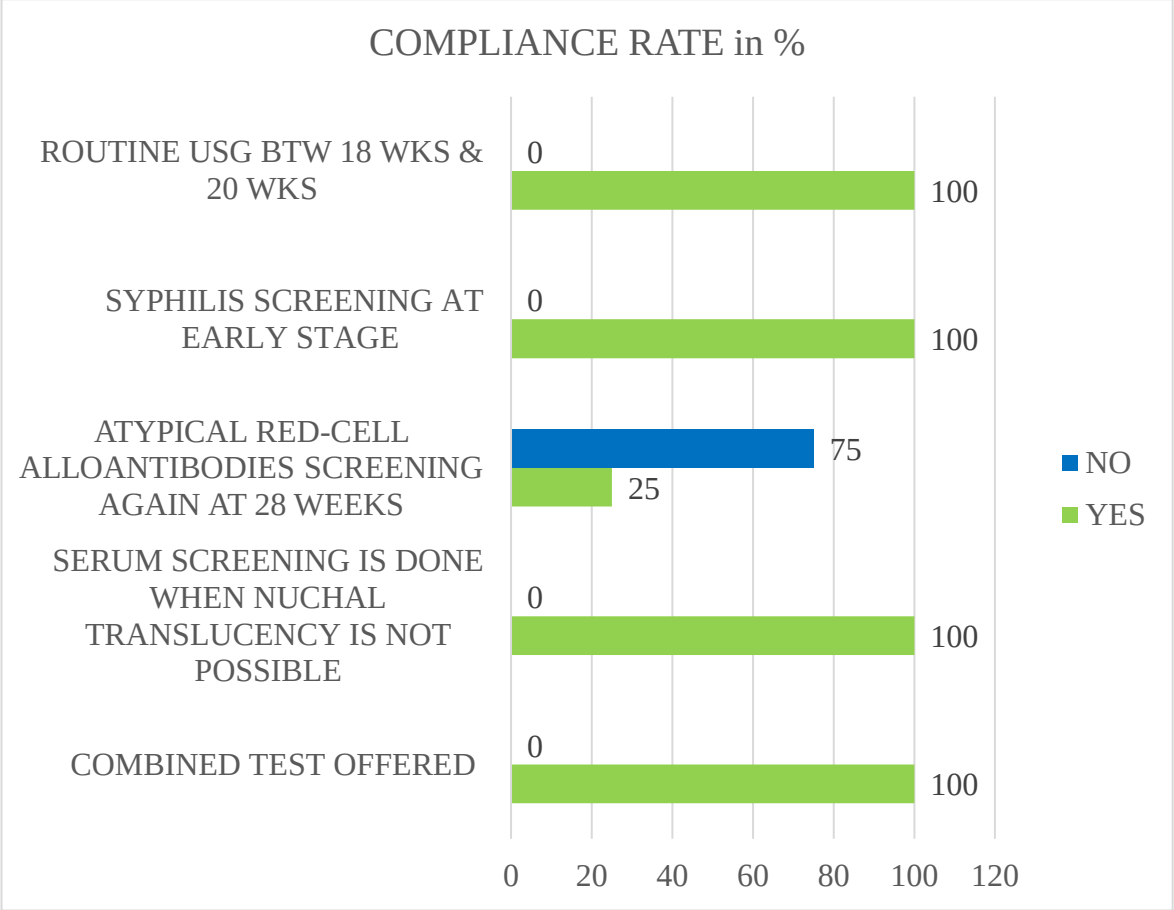
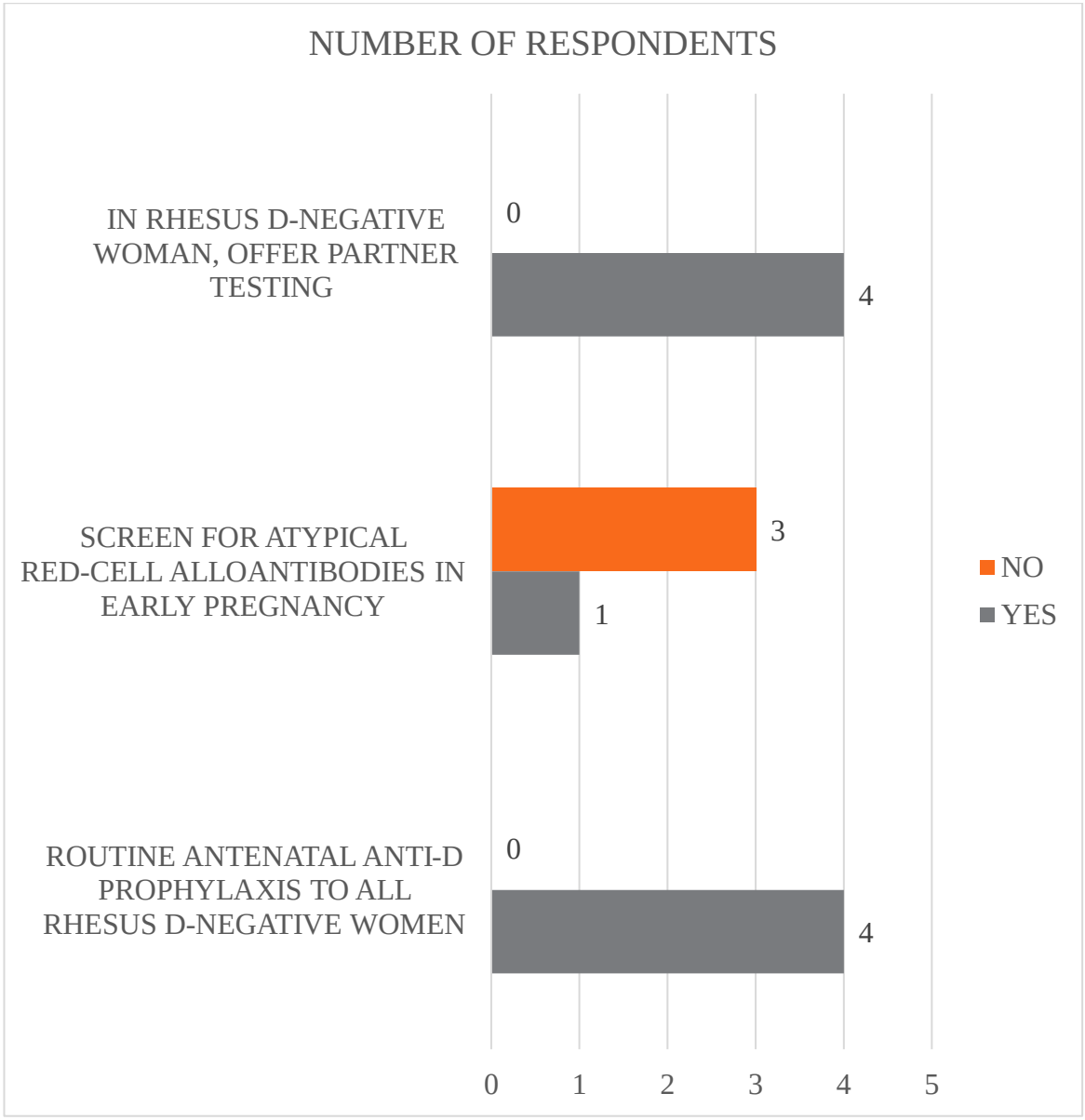


Figure: 6.11 Screening Compliances

INTERPRETATION:

- Almost 75% of the care provider are not offering atypical red-cell alloantibodies screening again at 28th week. This in contrast to the NICE guideline recommendation.
- All the care providers do offer ultrasound screening routinely as recommended.
- All care providers are offering syphilis screening and combined test.
- All care providers are doing serum screening when nuchal translucency is not possible.



Total N=4

Figure: 6.12 NUMBER OF RESPONDENTS

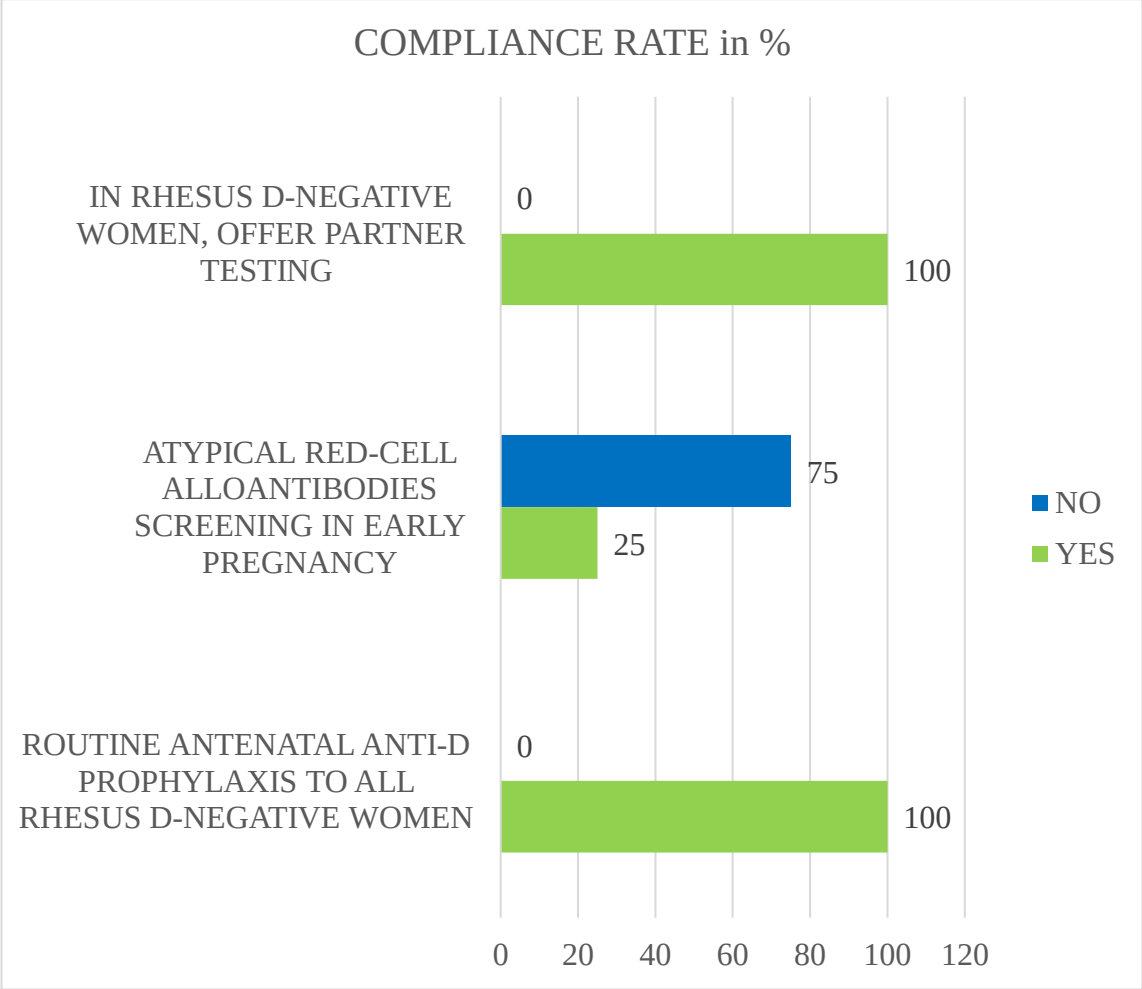


Figure: 6.13 Screening Compliances

INTERPRETATION:

- 75% care providers do not offer atypical red-cell alloantibodies screening in early pregnancy regardless of Rhesus-D status. This is in non-compliance with the NICE guidelines.
- All the care providers do offer partner testing in case a pregnant women is Rhesus-D negative. This is as per the recommended guidelines.
- All the care providers do offer anti natal anti-D prophylaxis to all pregnant women who are Rhesus-D negative. This is as per the recommended guidelines.

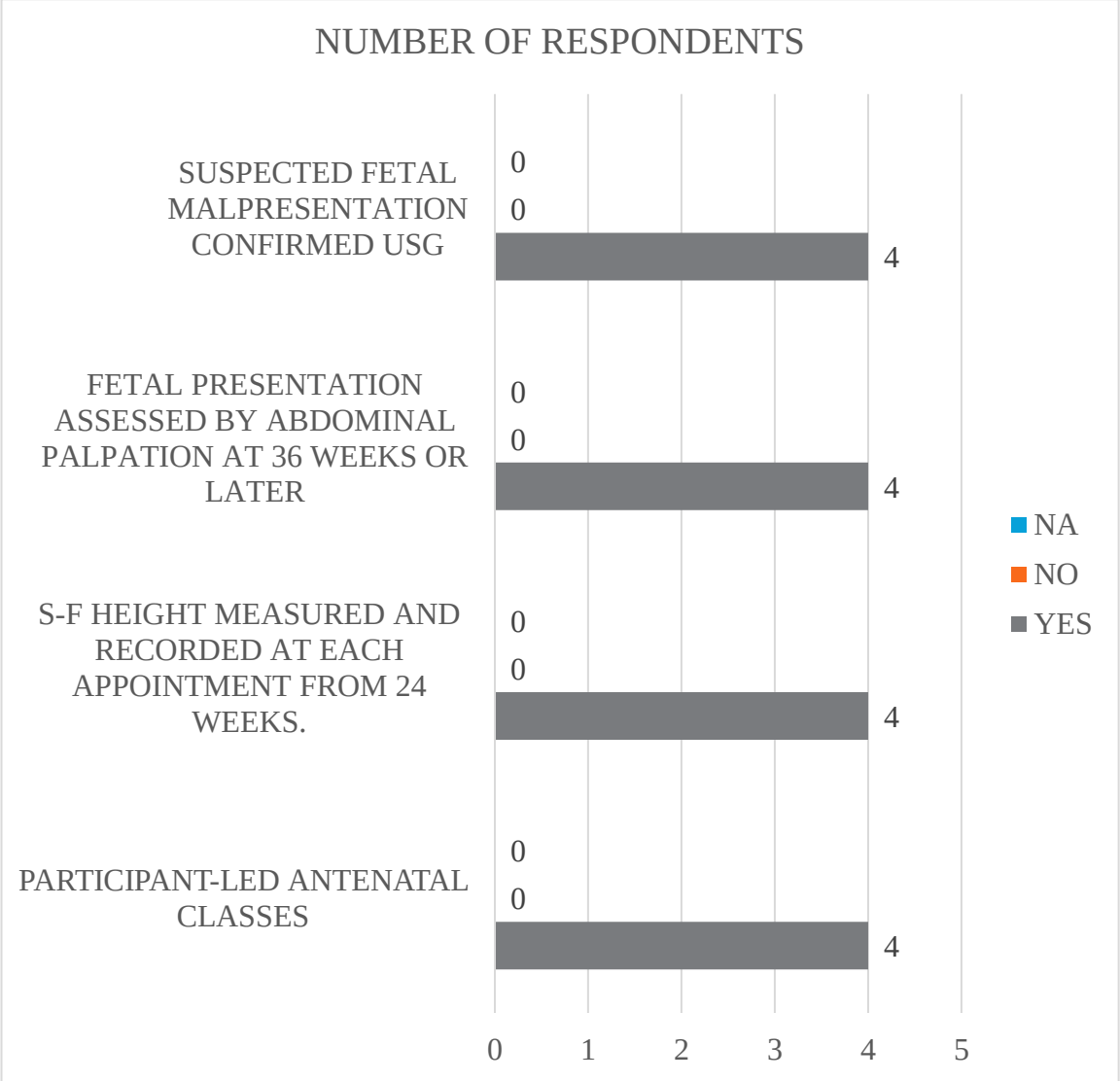


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Figure: 6.14 NUMBER OF RESPONDENTS

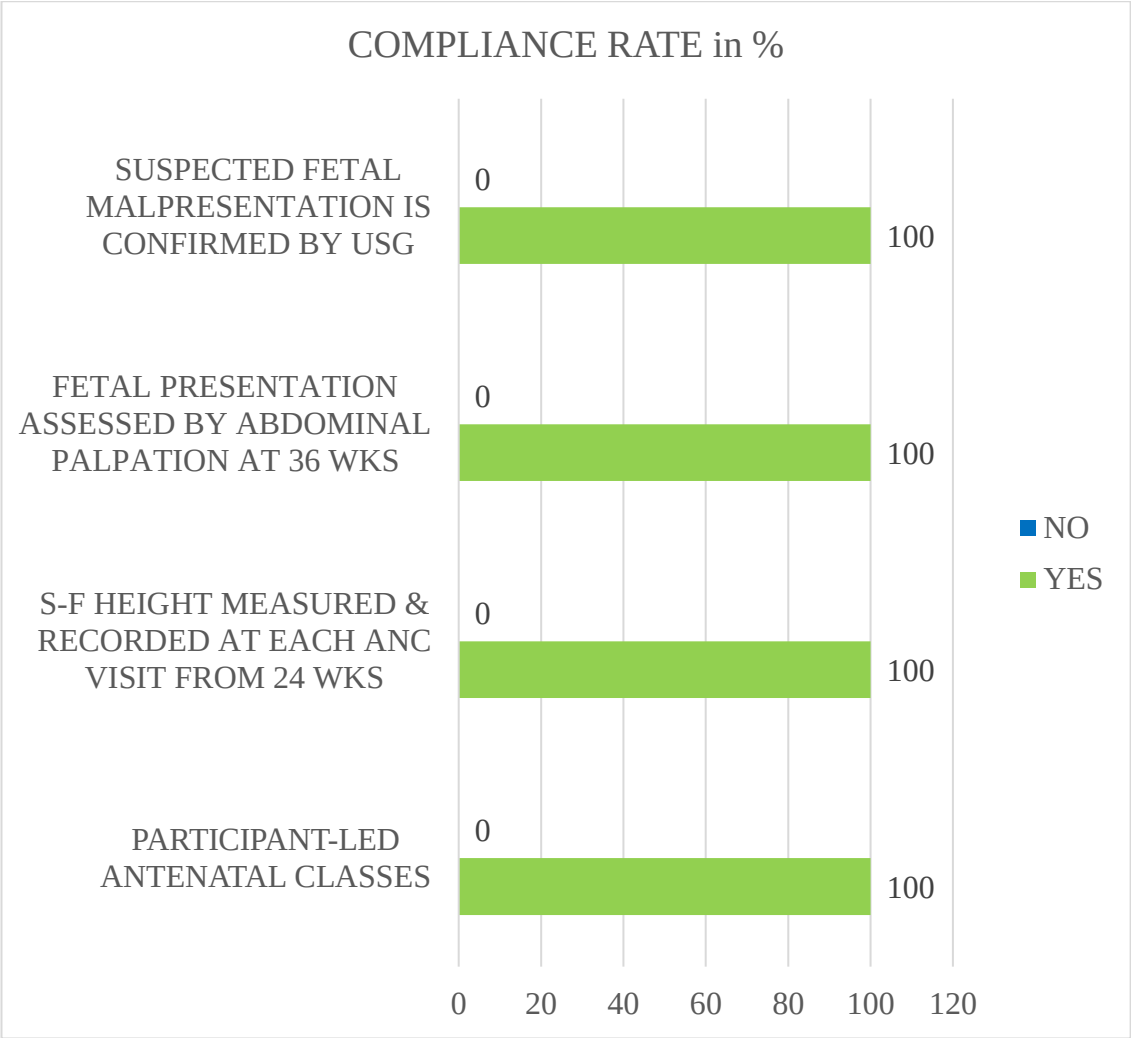


Figure: 6.15 Monitoring Growth and Fetal Wellbeing Compliance

INTERPRETATION:

- All the care provider are assessing fetal presentations by abdominal palpation and are confirming suspected fetal malpresentations by ultrasound assessment.
- They are recording the Symphysis- Fundal height at each antenatal visit from 24th week and are organising participant led antenatal classes.

OBSERVATION AND RECORD REVIEW

130 patients were interviewed and compliance rate was calculated based on the responses for each guideline as shown in the table 6.3

Table 6.3: COMPLIANCE RATE BY OBSERVATION AND RECORD REVIEW

GUIDELINES	YES	NO
PREGNANT WOMEN ASSESSING ANC BY 10TH WEEK O DAYS	100 %	0
A SCHEDULE OF 10 APPOINTMENTS:NULLIPAROUS WITH UNCOMPLICATED PREGNANCY	0	100%
A SCHEDULE OF 7 APPOINTMENTS: PAROUS WITH UNCOMPLICATED PREGNANCY	0	100%
INFORMATION ABOUT ANTENATAL SCREENING PROVIDED ON A ONE-TO-ONE BASIS.	100%	0
PREGNANT WOMAN TREATED WITH RESPECT AND DIGNITY	100%	0
WOMAN RECEIVE APPROPRIATE WRITTEN INFORMATION ABOUT THE LIKELY NUMBER, TIMING AND CONTENT OF ANTENATAL APPOINTMENTS	13%	87%
EACH ANTENATAL APPOINTMENT HAS STRUCTURED AND FOCUSED CONTENT.	0	100%
PREGNANT WOMEN INFORMED OF THEIR MATERNITY RIGHTS AND BENEFITS.	0	100%
WOMEN CARRY THEIR OWN CASE NOTES	100%	0

Table 6.3 continued

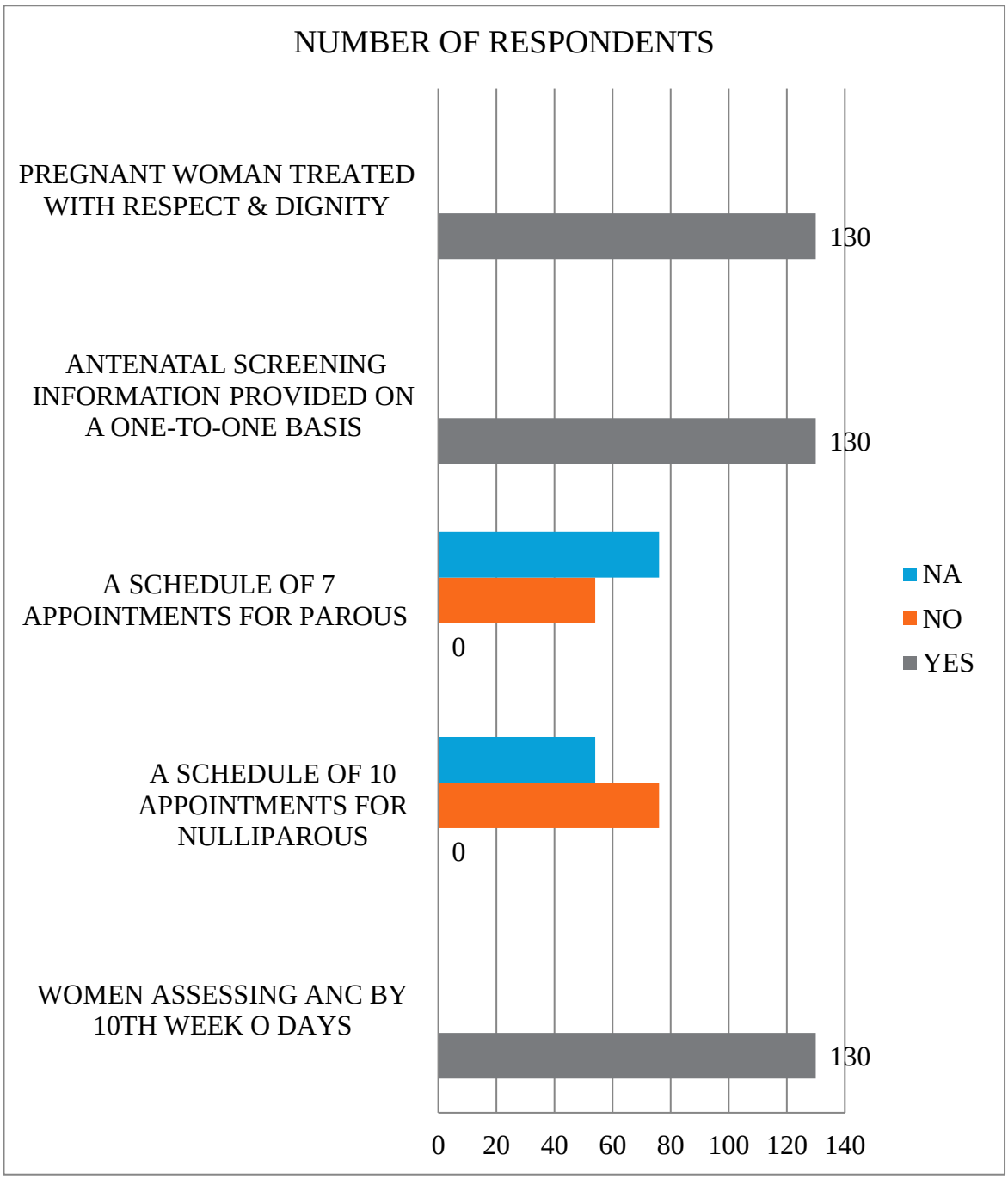
GUIDELINES	YES	NO
PREGNANT WOMEN INFORMED ABOUT THE CORRECT USE OF SEATBELTS	7%	93%
WOMAN INFORMED THAT MOST COMMON AILMENTS IN PREGNANCY WILL RESOLVE SPONTANEOUSLY	85%	15%
WOMAN GIVEN INFORMATION ABOUT SELF-HELP AND NON-PHARMACOLOGICAL TREATMENTS.	85%	15%
MATERNAL WEIGHT AND HEIGHT IS MEASURED AND THE WOMAN'S BODY MASS INDEX IS CALCULATED	0%	100%
INFORMATION GIVEN ABOUT FOLIC ACID SUPPLEMENTATION AT FIRST CONTACT	100%	0%
INFORMATION GIVEN ABOUT FOOD HYGIENE	65%	35%
INFORMATION GIVEN ABOUT LIFESTYLE	28%	725
INFORMATION GIVEN ABOUT ALL ANTENATAL SCREENING.	38%	62%
INFORMATION GIVEN ABOUT HOW THE BABY DEVELOPS DURING PREGNANCY	9%	91%
INFORMATION IS GIVEN ABOUT NUTRITION AND DIET	100%	0%
PREGNANT WOMEN OFFERED SCREENING FOR ANAEMIA AT THE BOOKING APPOINTMENT	100%	0%
SCREENING FOR SICKLE CELL DISEASES AND THALASSAEMIAS OFFERED TO ALL WOMEN AS EARLY AS POSSIBLE IN PREGNANCY.	100%	05
IRON SUPPLEMENTATION OFFERED ROUTINELY TO ALL PREGNANT WOMEN	92%	8%

Table 6.3 continued

GUIDELINES	YES	NO
WHEN Hb LEVELS ARE OUTSIDE THE NORMAL RANGE FOR PREGNANCY CAUSE IS INVESTIGATED AND IRON SUPPLEMENTATION IS CONSIDERED	100%	0
WOMEN OFFERED TESTING FOR BLOOD GROUP AND RHESUS D STATUS IN EARLY PREGNANCY.	100%	0
PREGNANT WOMEN GIVEN A CHOICE ABOUT PLACE OF BIRTH	100%	0
SCREENING FOR DOWN'S SYNDROME OFFERED BY THE END OF THE FIRST TRIMESTER 13 WEEKS 6 DAYS	100%	0
PREGNANT WOMEN IS OFFERED AN EARLY ULTRASOUND SCAN BETWEEN 10 WEEKS 0 DAYS AND 13 WEEKS 6 DAYS	100%	0
75 G 2-HOUR OGTT OFFERED AS SOON AS POSSIBLE IN THE FIRST OR SECOND TRIMESTER.	100%	0
PREGNANT WOMEN SHOULD BE OFFERED SCREENING FOR ANAEMIA AT 28 WEEKS.	100%	0
75 G 2-HOUR OGTT OFFERED AT 24–28 WEEKS EVEN IF THE RESULTS OF THE FIRST OGTT ARE NORMAL.	26%	74%
MENTAL HEALTH ISSUES DISCUSSED.	0%	100%
BEFORE OR AT 36 WEEKS DID PREGNANT WOMEN RECEIVED INFORMATION ABOUT BREASTFEEDING	15%	85%
BEFORE OR AT 36 WEEKS DID PREGNANT WOMAN GIVEN INFORMATION ABOUT PREPARATION FOR LABOUR AND BIRTH	15%	85%
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ON RECOGNITION OF ACTIVE LABOUR	15%	85%

Table 6.3 continued

GUIDELINES	YES	NO
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION REGARDING CARE OF NEW BABY	15%	85%
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ABOUT VITAMIN K PROPHYLAXIS	0%	100%
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ABOUT NEWBORN SCREENING TESTS	0%	100%
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ABOUT POSTNATAL SELF-CARE	15%	85%
BEFORE OR AT 36 WEEKS IS WOMAN MADE AWARE OF 'BABY BLUES' AND POSTNATAL DEPRESSION	0%	100%
THERE CONTINUITY OF CARE THROUGHOUT THE ANTENATAL PERIOD.	68%	32%



Total N=130

Figure: 6.16 NUMBER OF RESPONDENTS

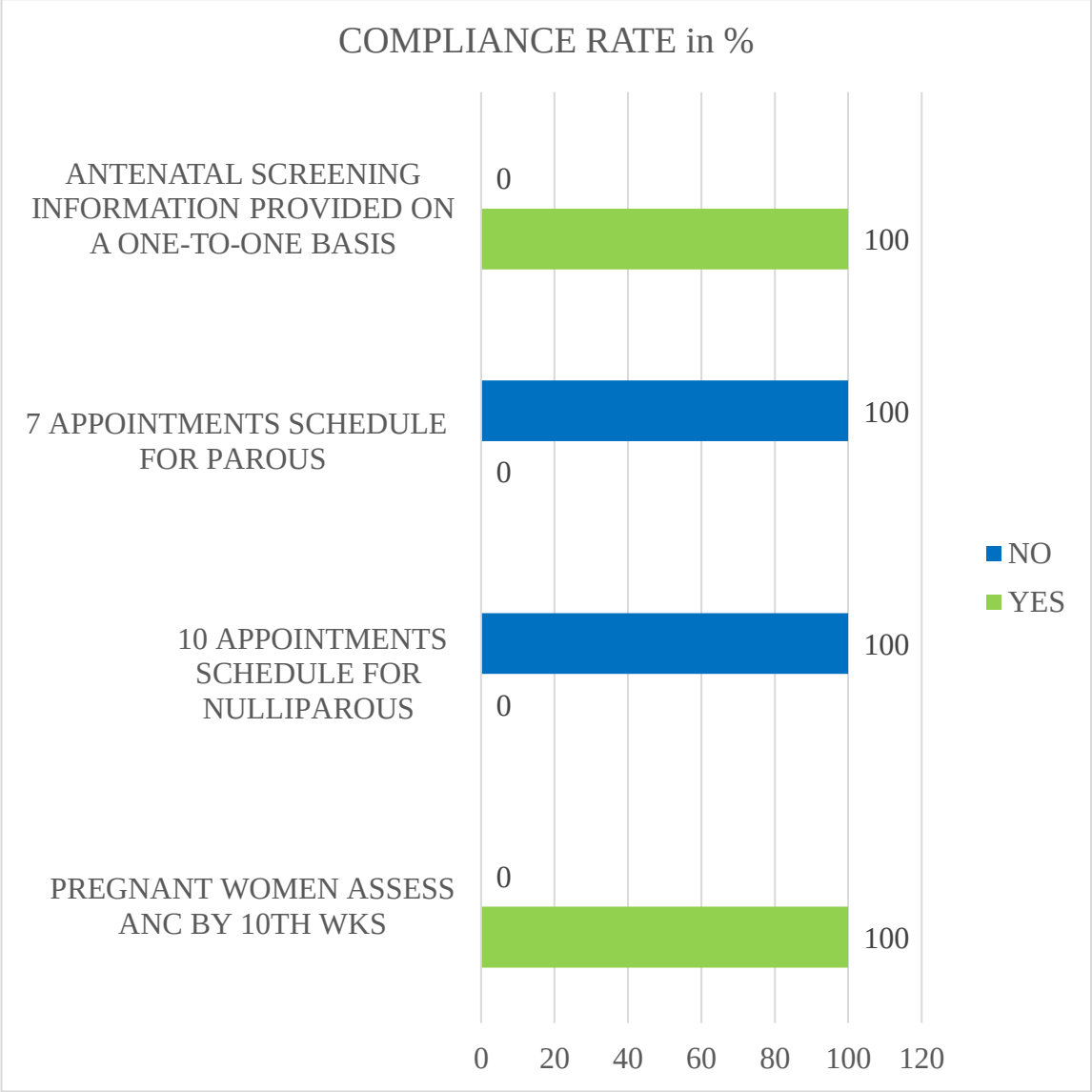
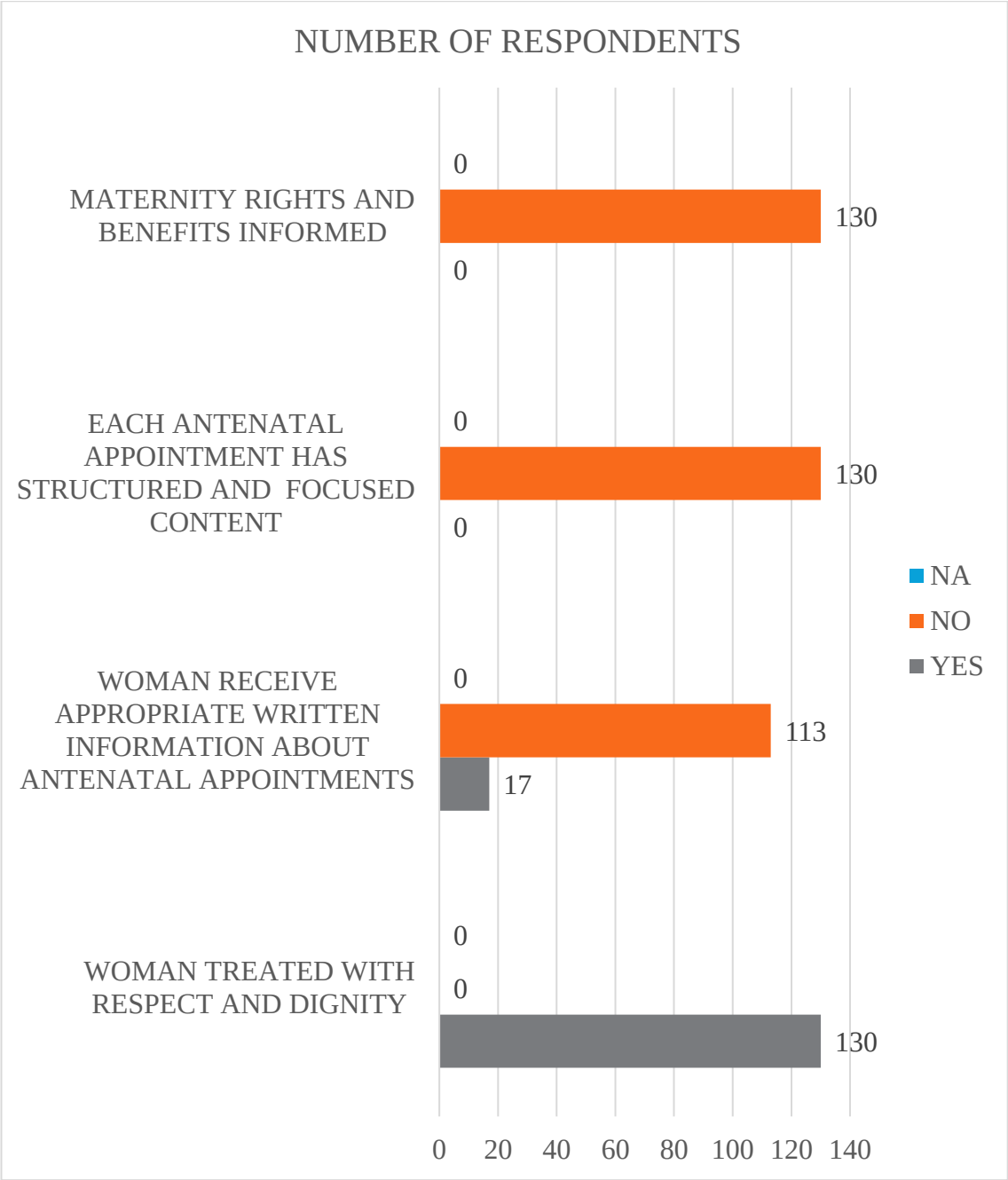


Figure: 6.17 Schedule Of Appointment Compliance

INTERPRETATION:

- For all types of pregnancy- parous or nulliparous the number of appointment are does not match with the recommended schedule and number.
- All pregnant women does assessed antenatal care by the 10th week.
- In all pregnant women antenatal screening was done on one to one basis.



Total N=130

Figure: 6.18 NUMBER OF RESPONDENTS

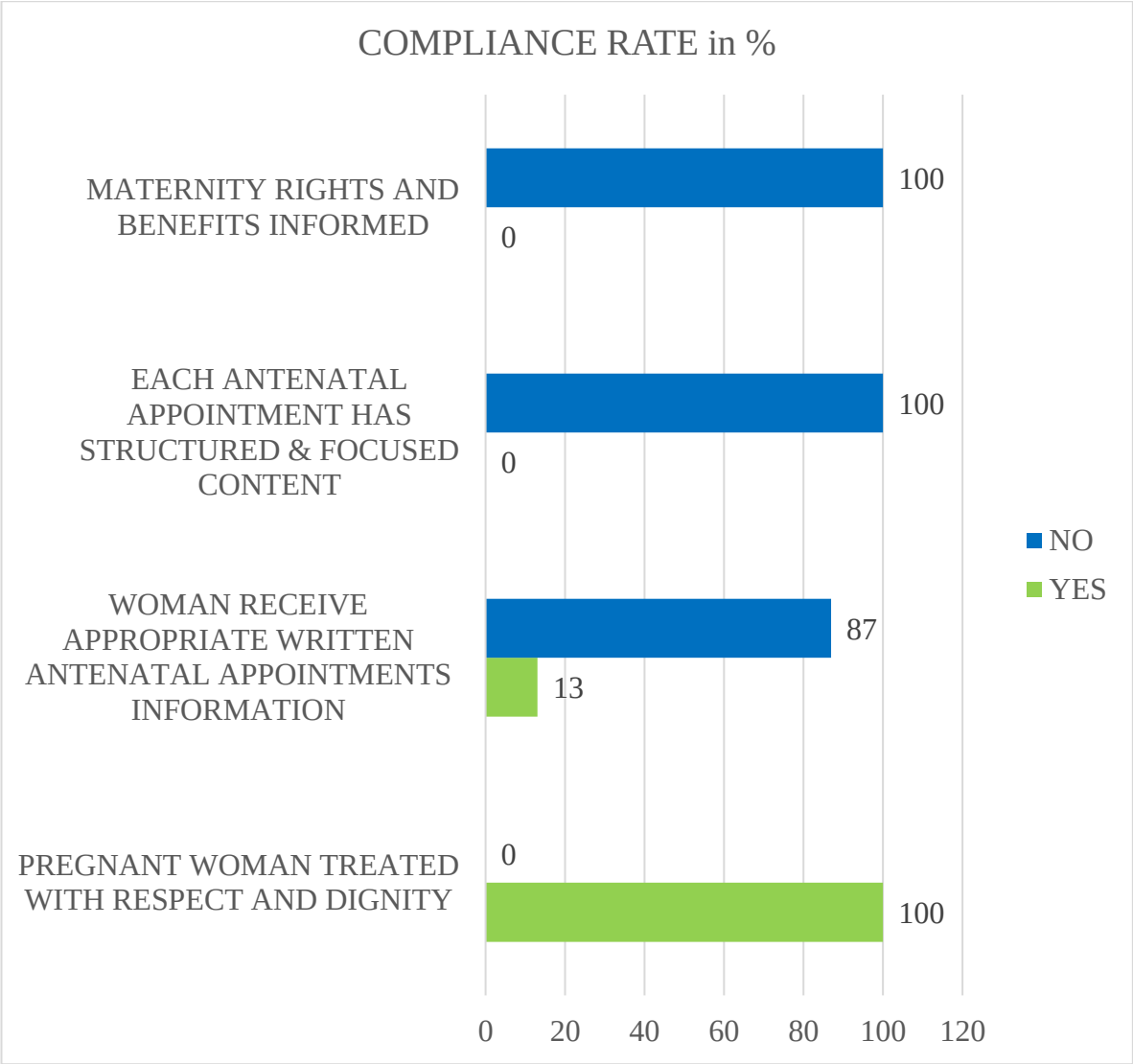
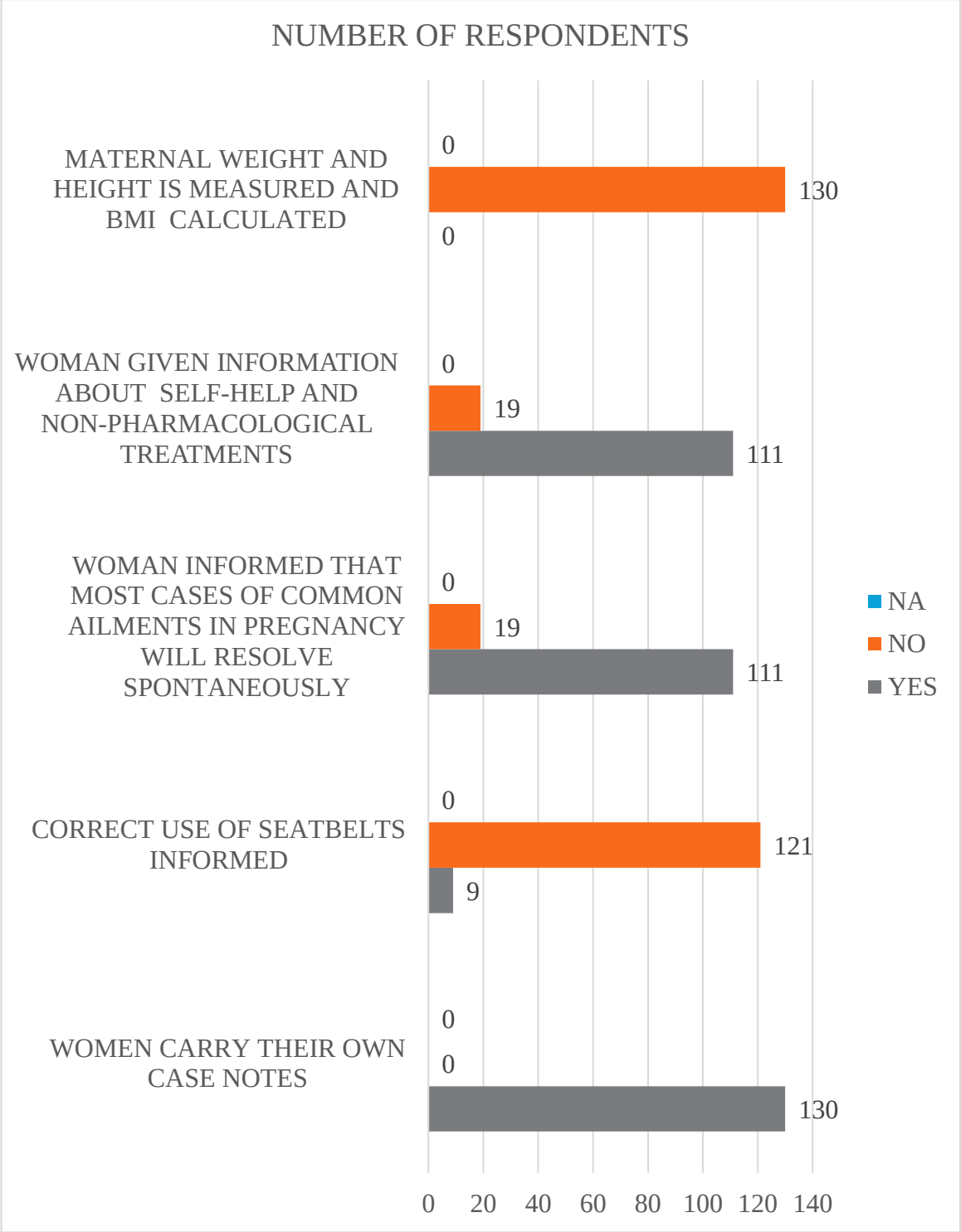


Figure: 6.19 Information And Record Compliance

INTERPRETATION:

- None of the pregnant women were informed about their maternity rights and benefits.
- Antenatal appointments did not had any structured or focused content neither any of the pregnant women received any written information about likely number, timing or content of these appointments.
- All the pregnant females were treated with respect and dignity.



Total N=130

Figure: 6.20 NUMBER OF RESPONDENTS

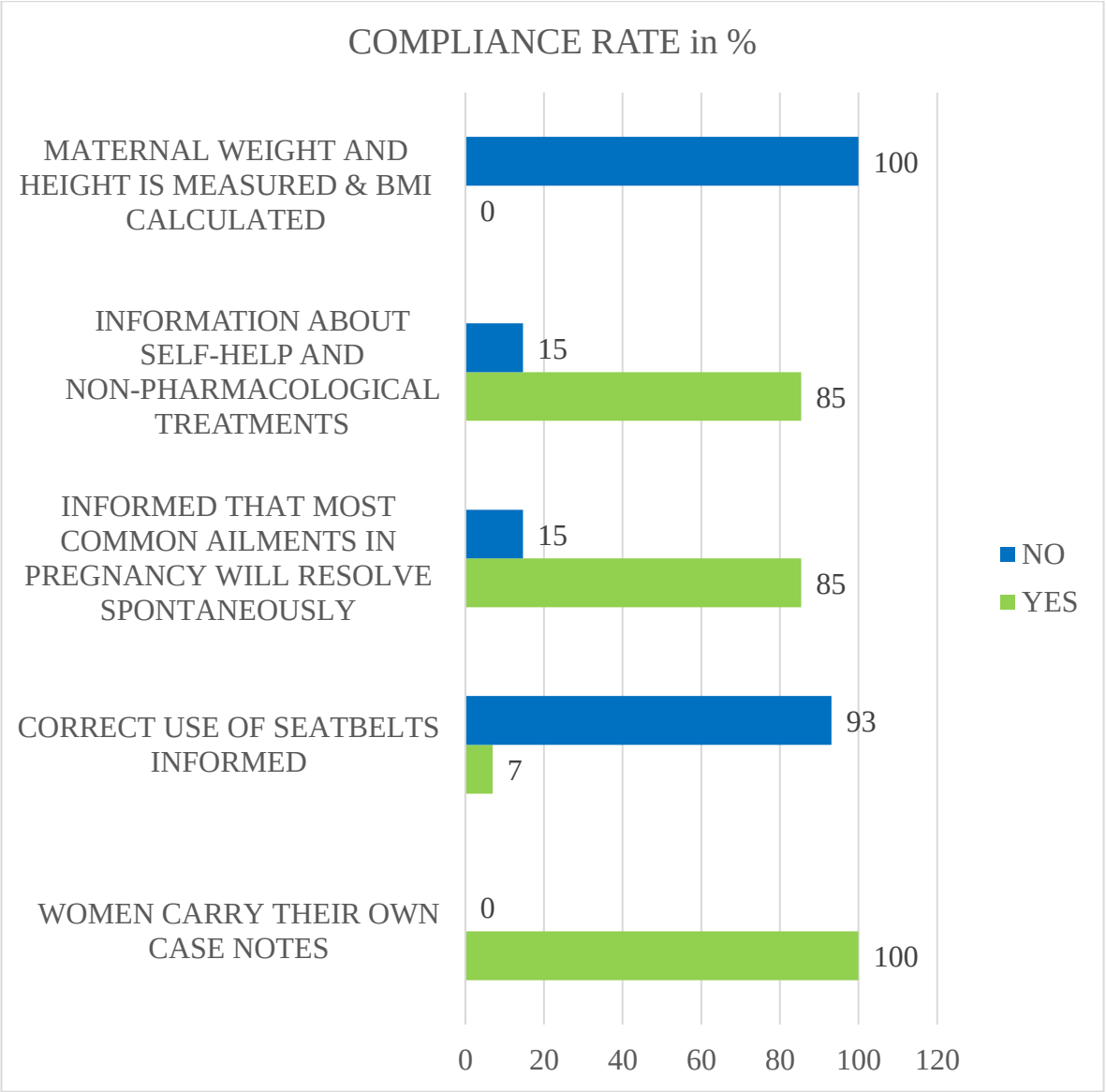
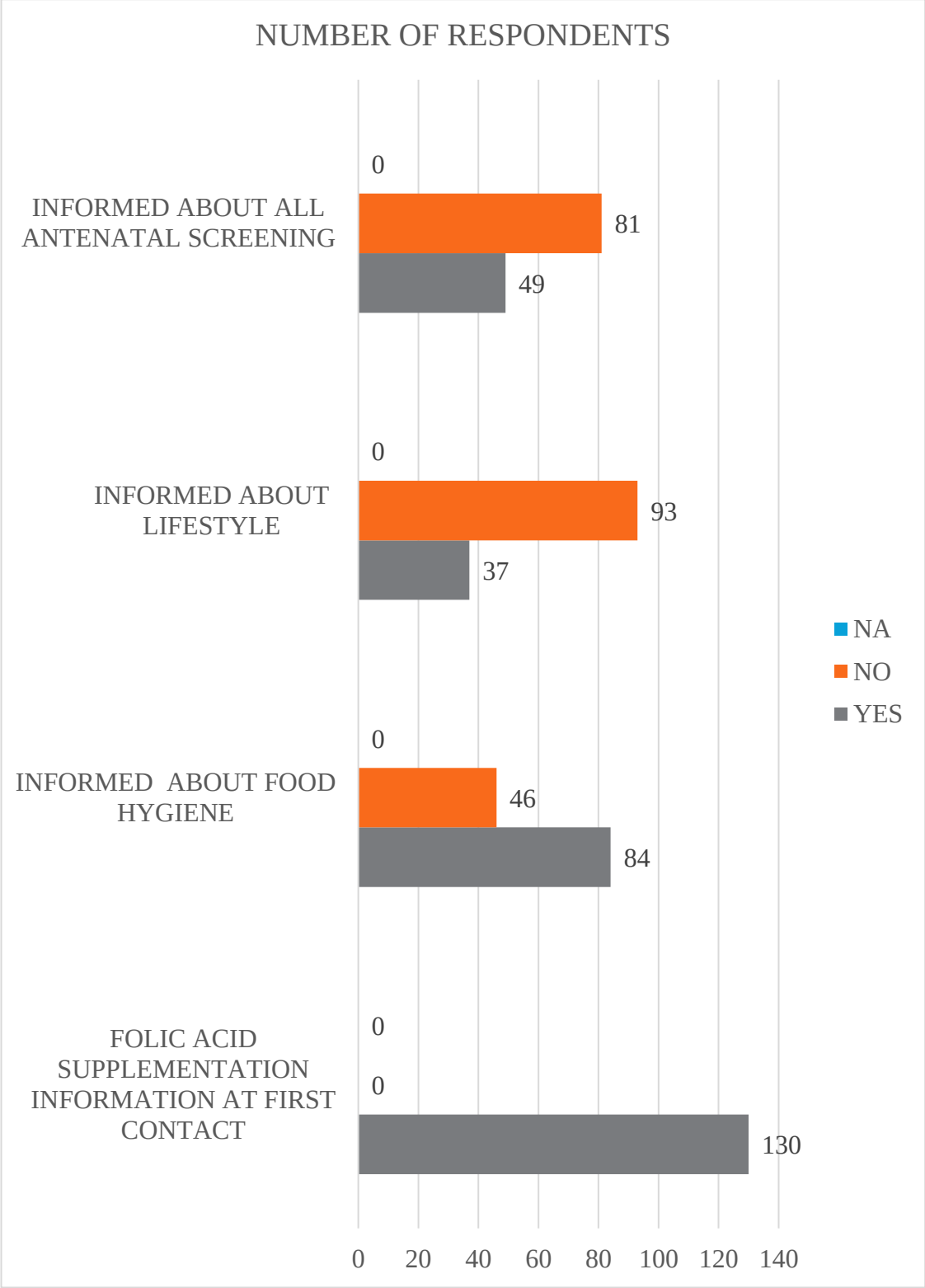


Figure: 6.21 Clinical Examinations and Information Compliance

INTERPRETATION:

- Body mass index was not calculated for any pregnant women, only weight of the women was recorded at each visit.
- Almost 93% of women were not informed about the correct use of seatbelts.
- Majority of women were informed about common ailments and corresponding self-help and non-pharmacological treatments.
- Almost all women were carrying their own case notes.



Total N=130

Figure: 6.22 NUMBER OF RESPONDENTS

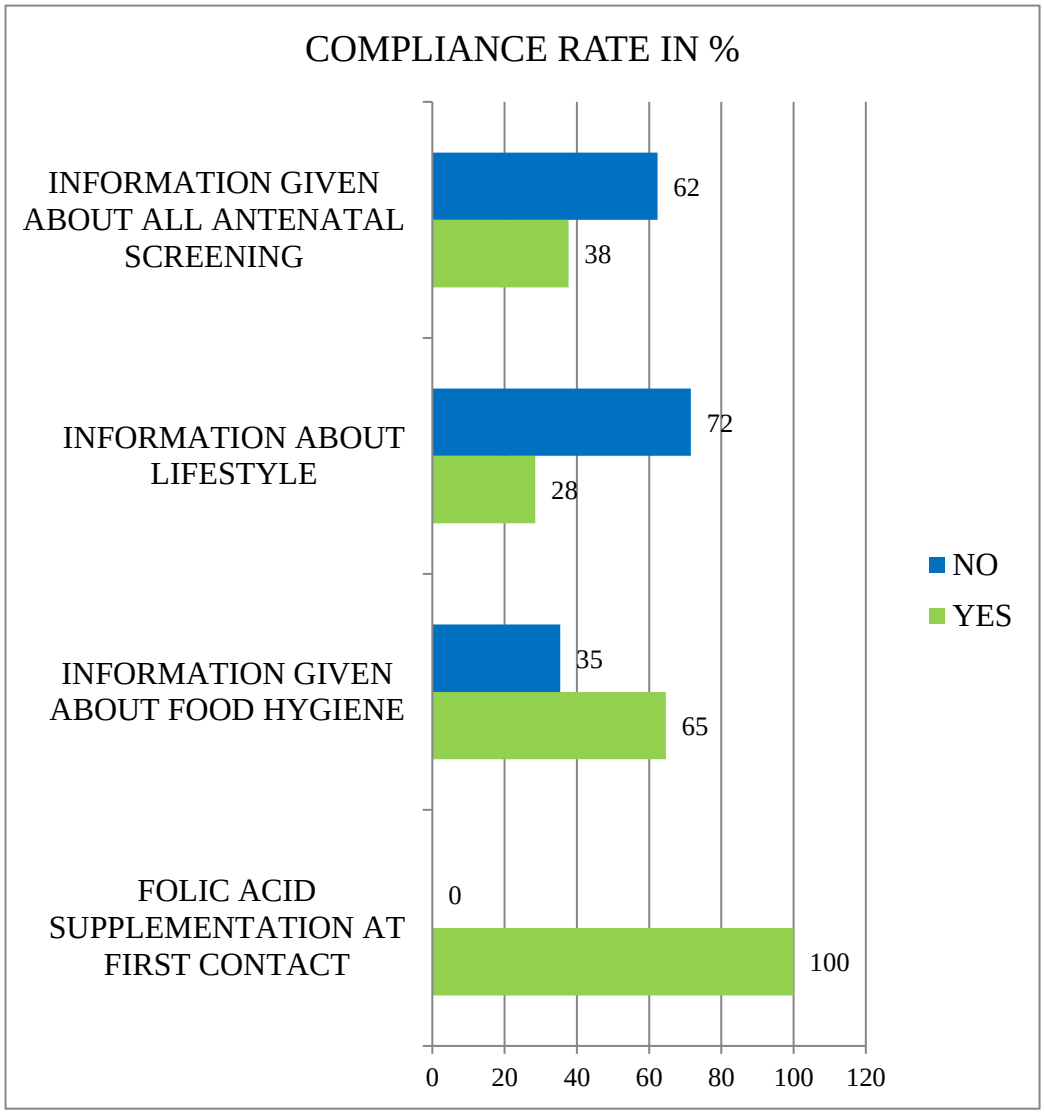
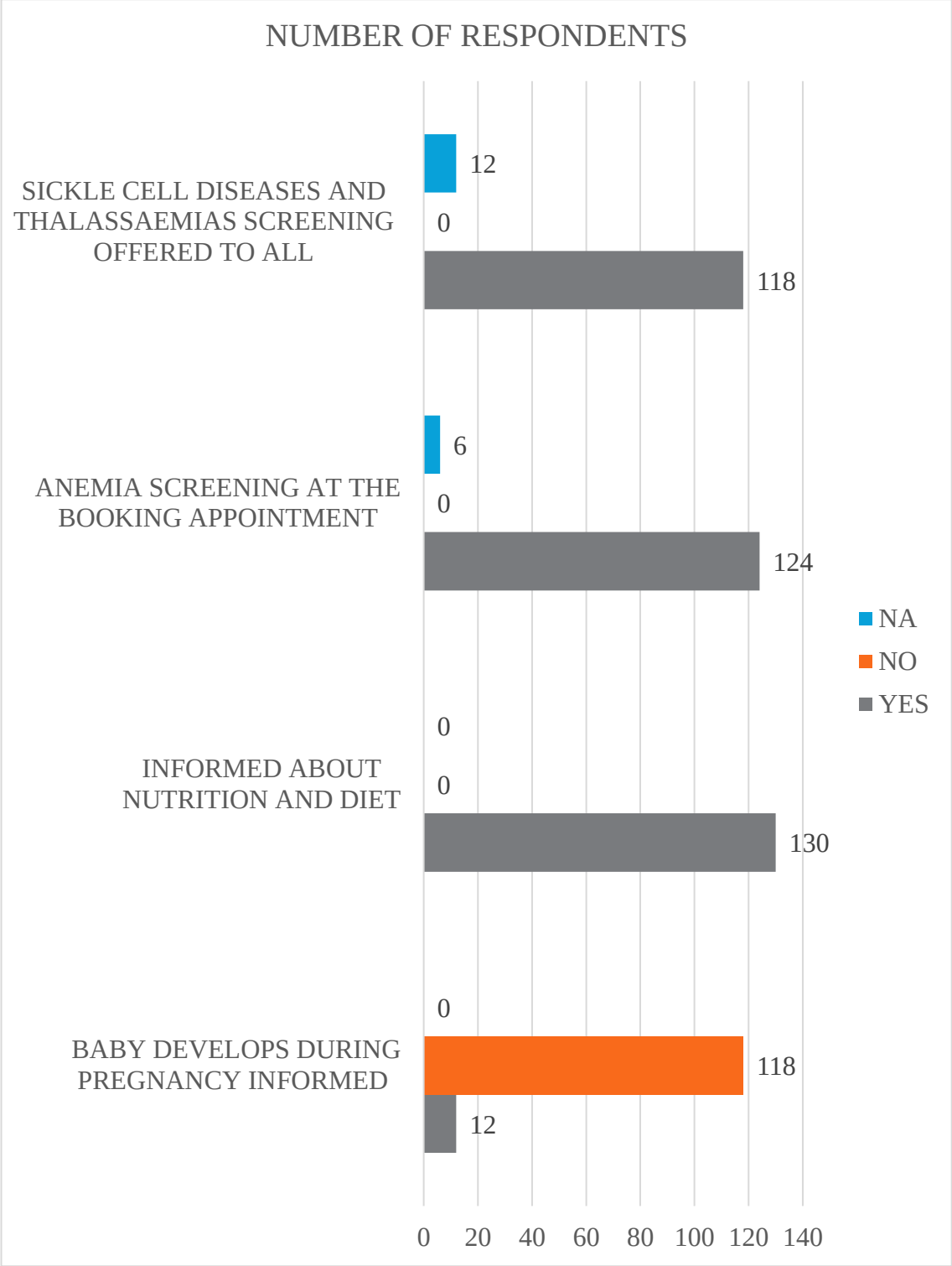


Figure: 6.23 Information Compliance

INTERPRETATION:

- About 62% of the pregnant women were not given any information about antenatal screenings and about 72% were not informed about any lifestyle considerations.
- Information about food hygiene was not given to 35% of the pregnant females.
- Almost all pregnant female were given information about folic acid at first contact.



Total N=130

Figure: 6.24 NUMBER OF RESPONDENTS

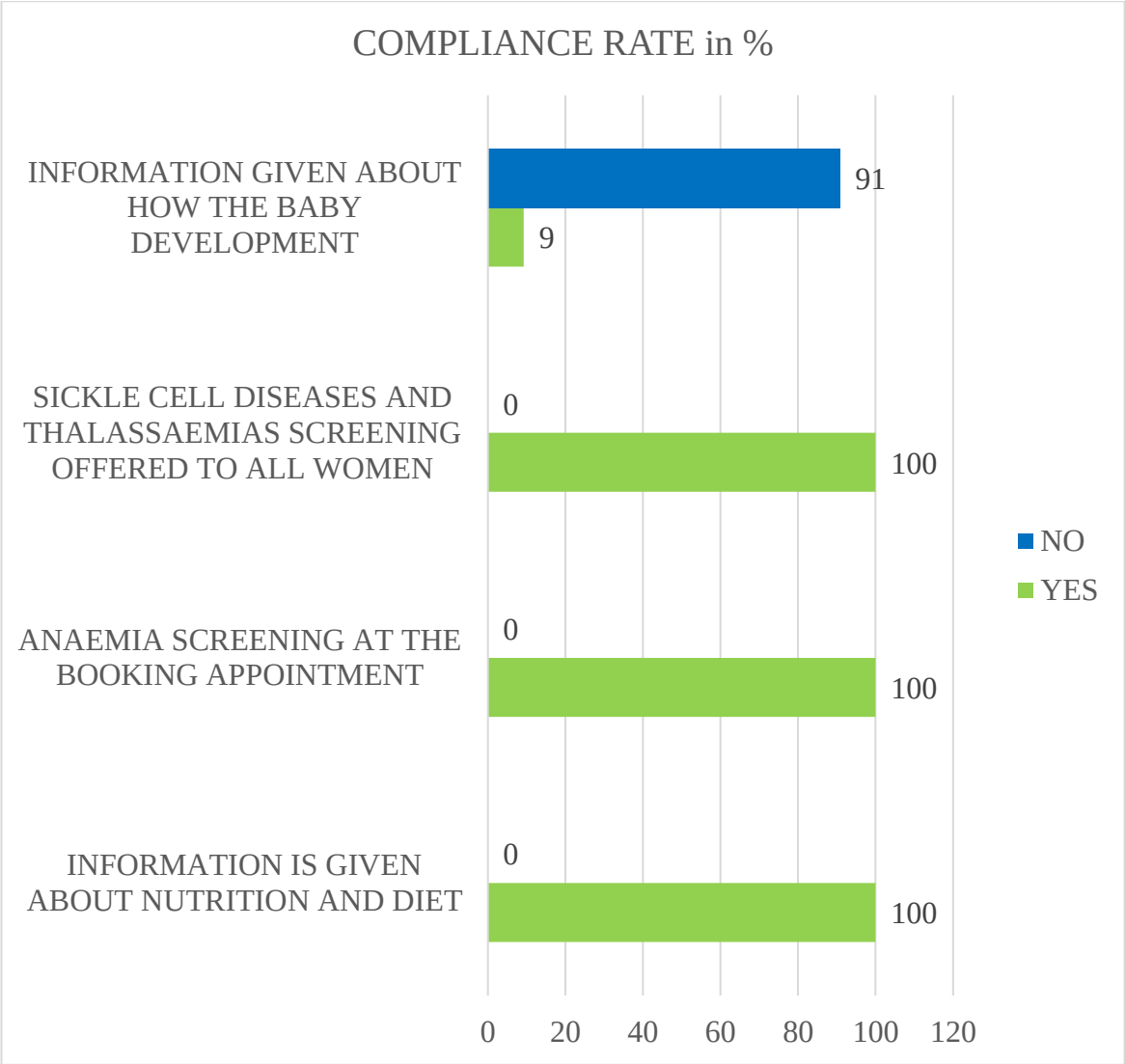
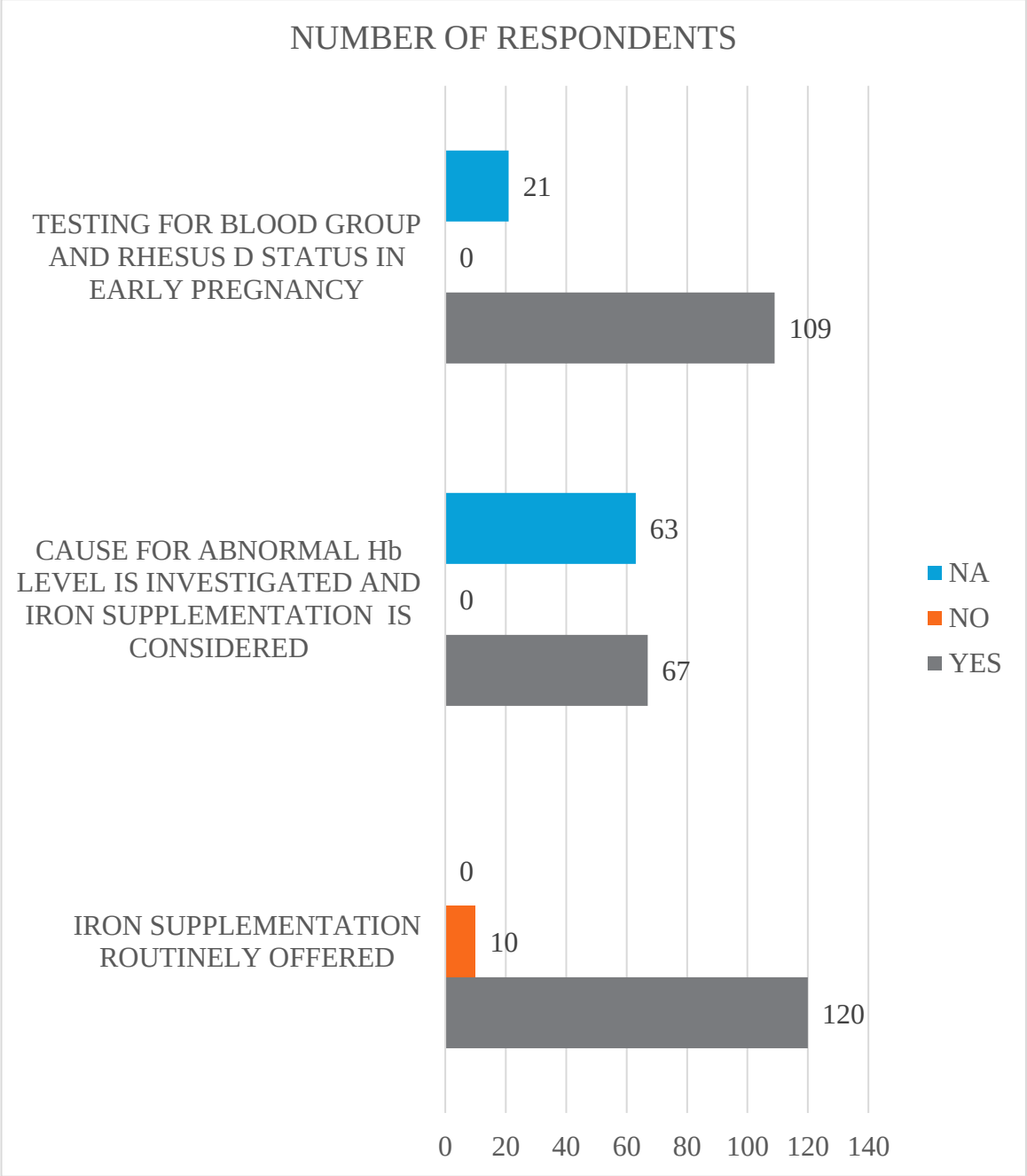


Figure: 6.25 Screening And Information Compliance

INTERPRETATION:

- 91% of the pregnant women were not given information about how baby develops during pregnancy.
- In all pregnant women screening for anemia, sickle cell disease and thalassemia is offered.
- All pregnant women were given information about diet and nutrition.



Total N=130

Figure: 6.26 NUMBER OF RESPONDENTS

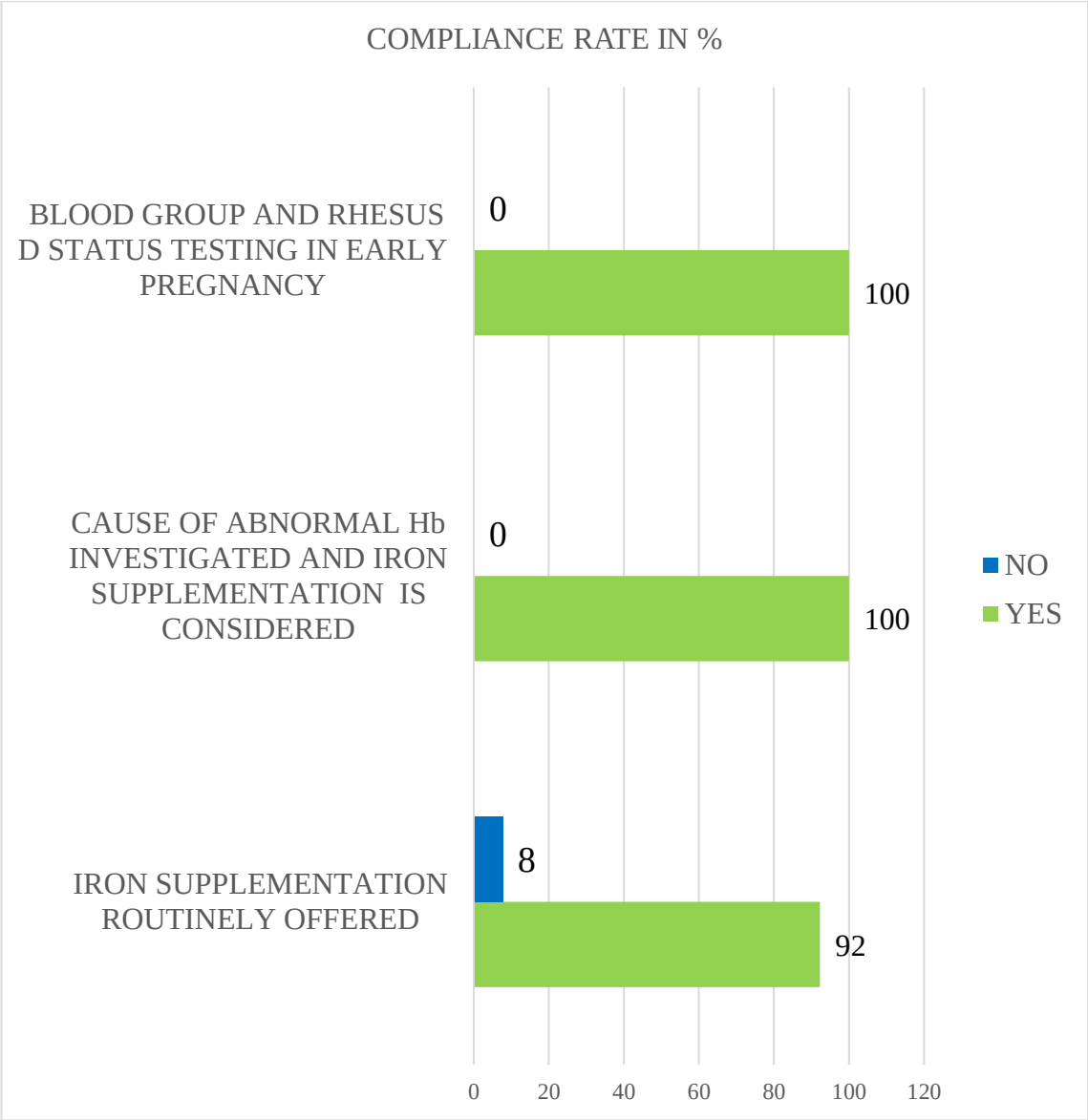
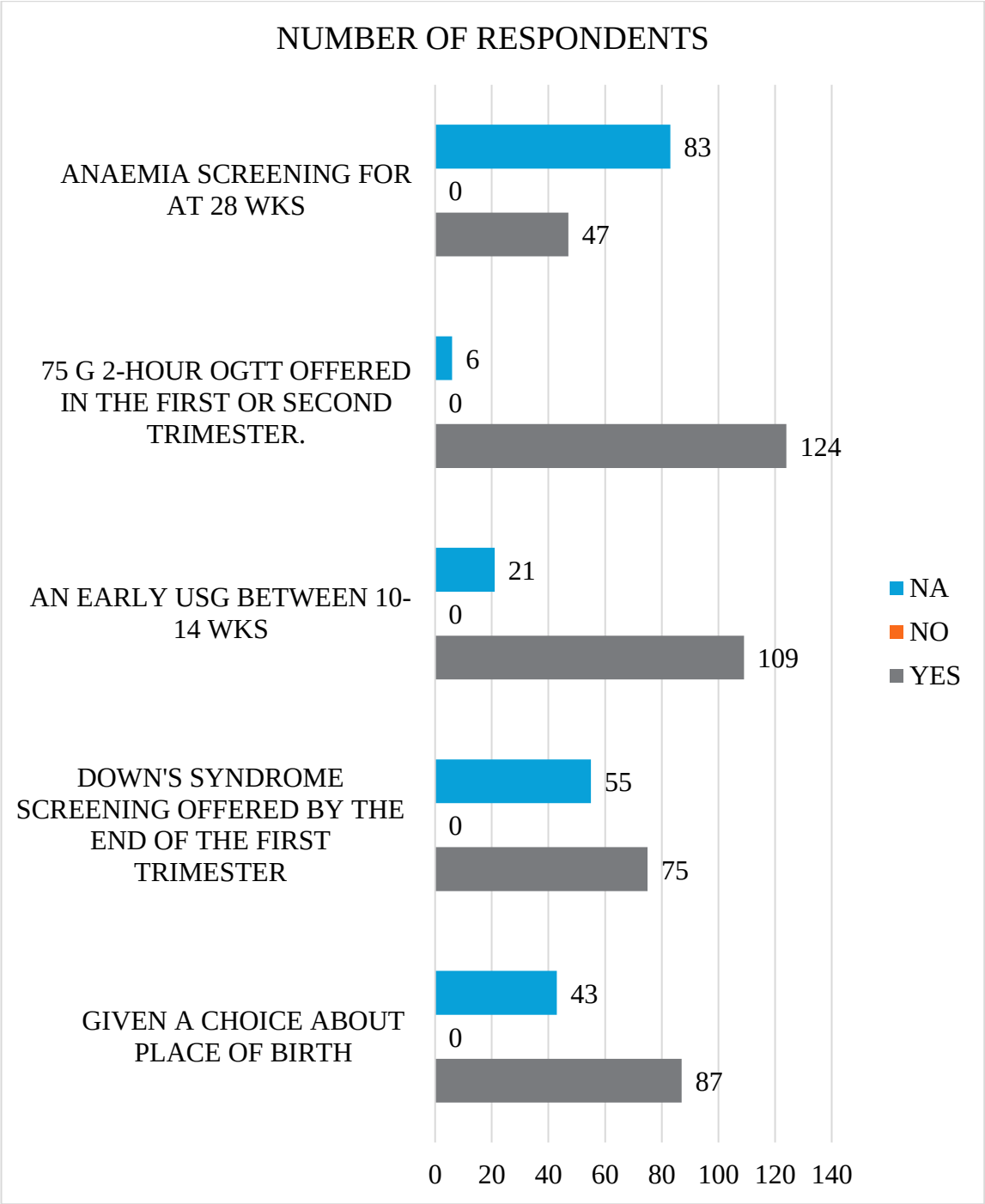


Figure: 6.27 Screening Compliance

INTERPRETATION:

- Almost all women were offered routinely iron supplementation, testing for blood grouping and Rhesus –D.
- When the Hb level were outside normal range for pregnancy then further investigations were offered to determine the cause and iron supplementation was given.



Total N=130

Figure: 6.28 NUMBER OF RESPONDENTS

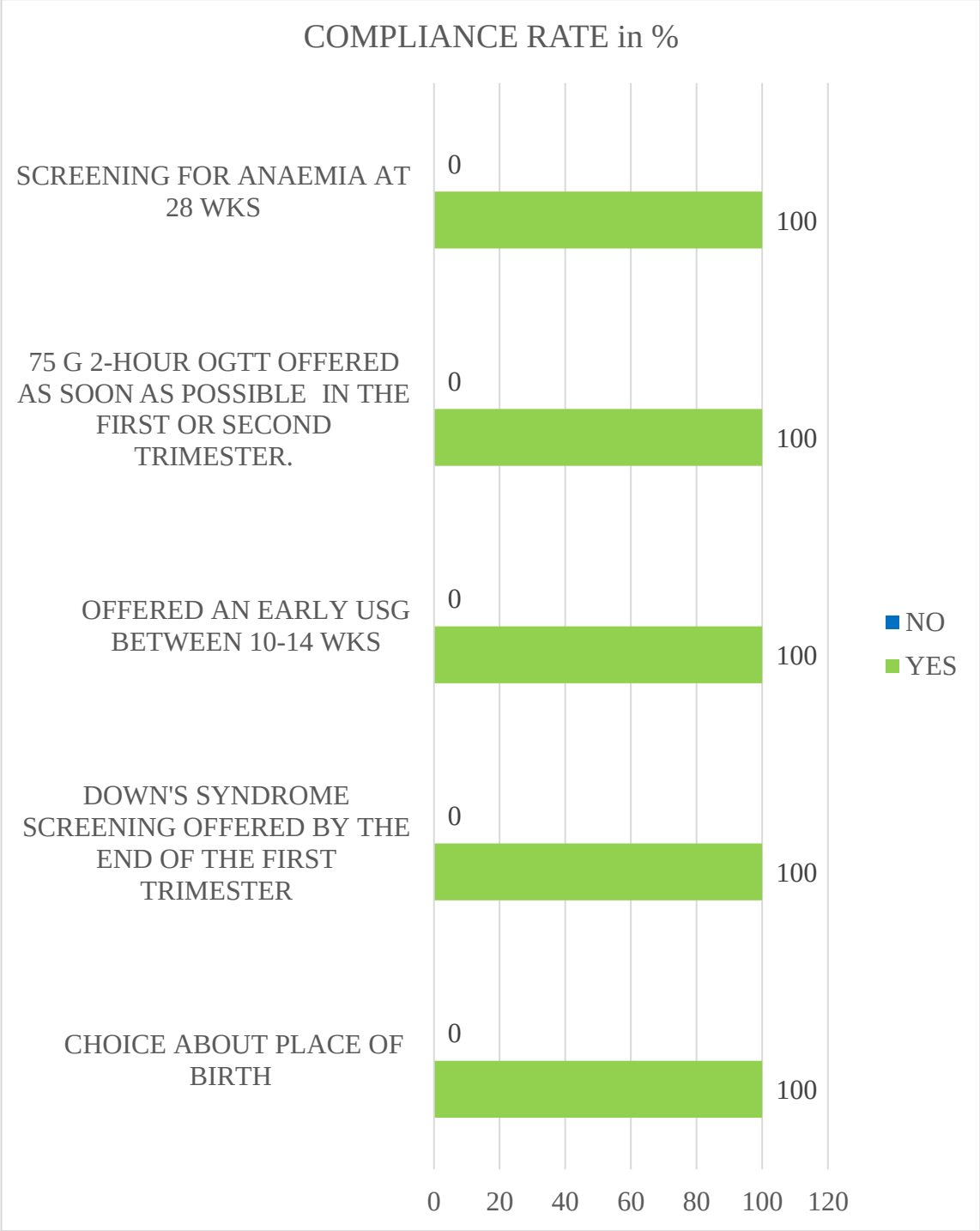
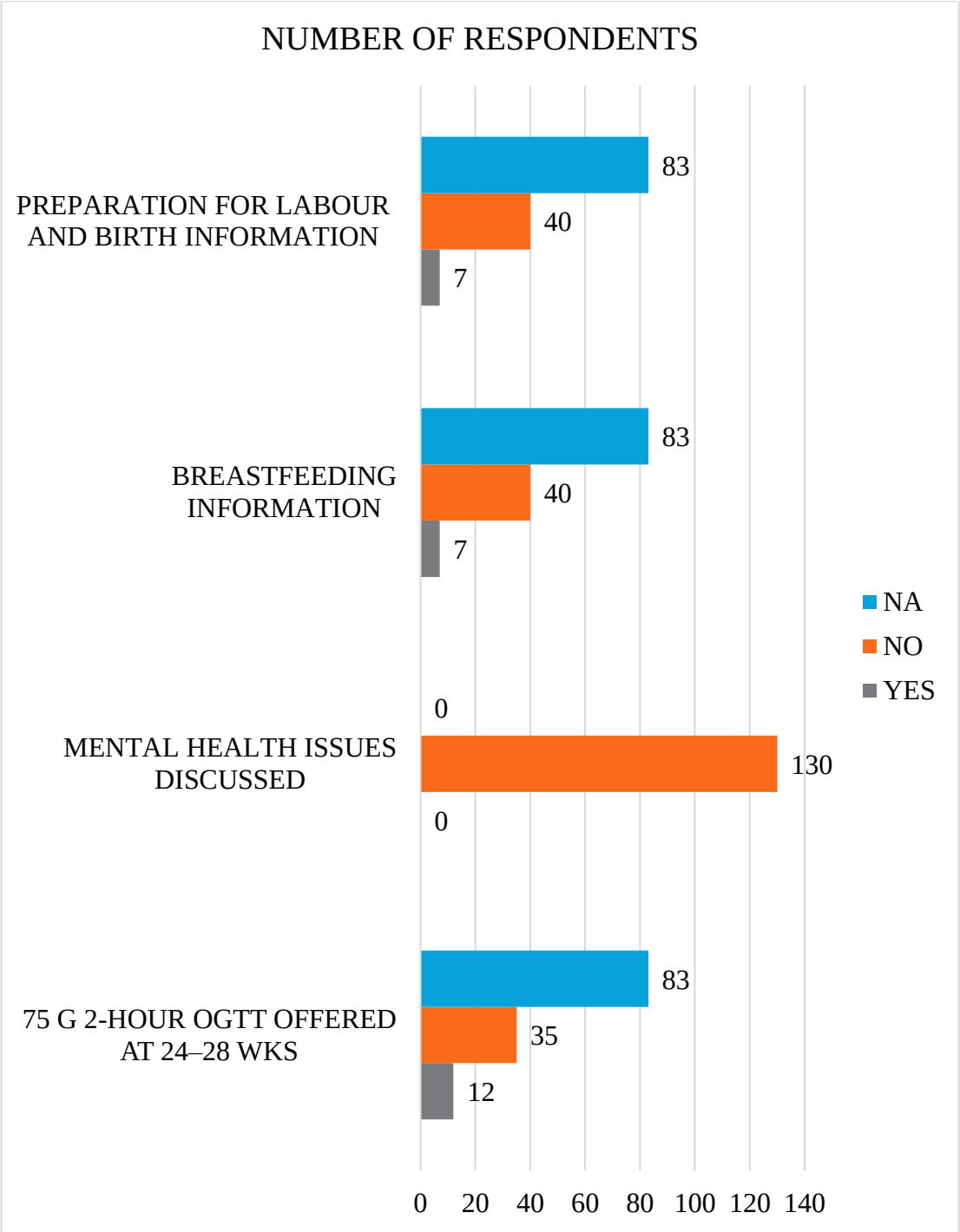


Figure: 6.29 Screening And Place of Birth Compliance

INTERPRETATION:

- All pregnant women were offered screening for Anemia again at 28th week, an early ultrasound scan, screening for Down syndrome.
- All pregnant women were given choice about the place of birth



Total N=130

Figure: 6.30 NUMBER OF RESPONDENTS

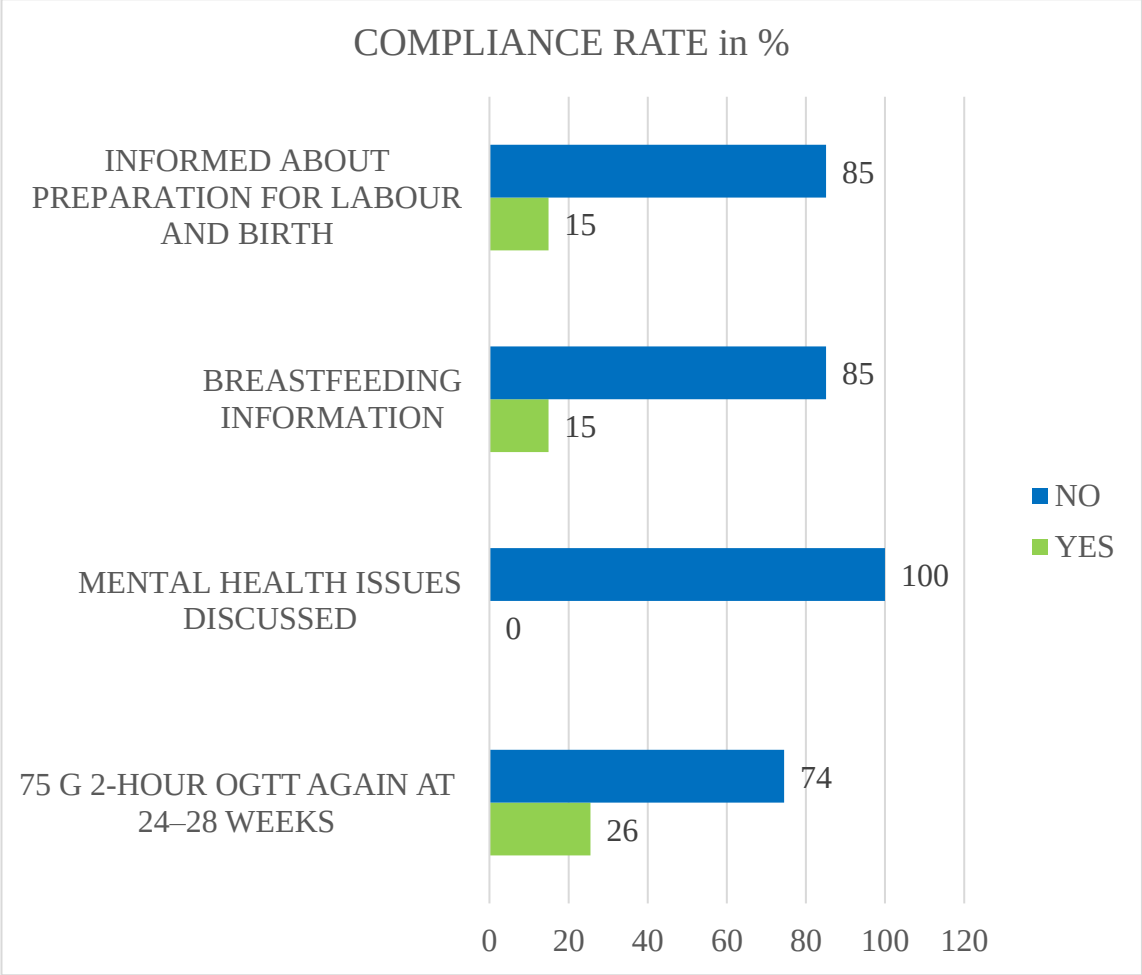
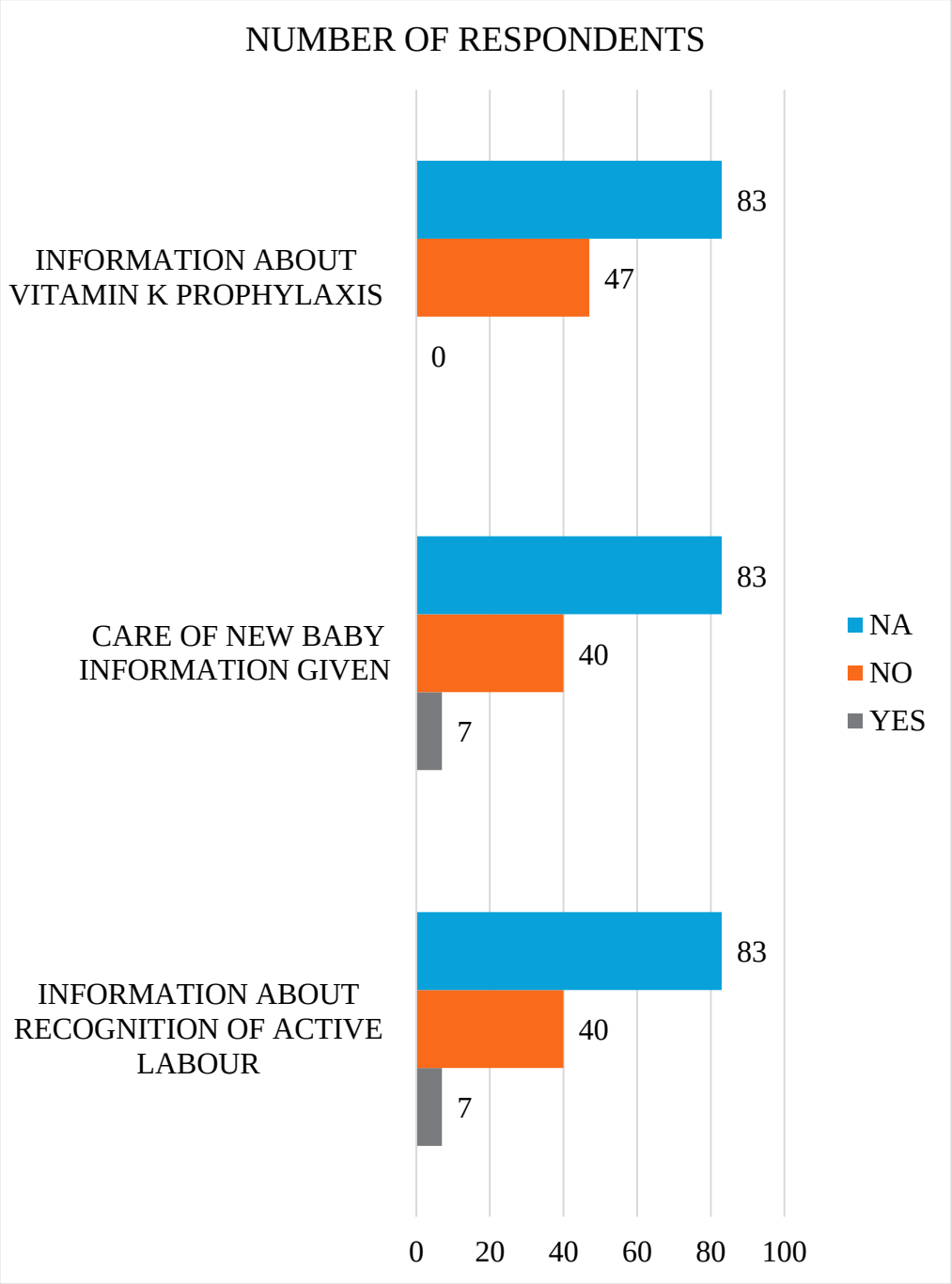


Figure: 6.31 Information Compliance

INTERPRETATION:

- Before or at 36 week majority of women were not given any information about preparation for labor and birth or breastfeeding. The only women who did receive these information were from those who attended antenatal class which were very few.
- No mental health issues were discussed with any pregnant women.
- In majority of women OGTT was not offered again at 24-28 weeks.



Total N=130

Figure: 6.32 NUMBER OF RESPONDENTS

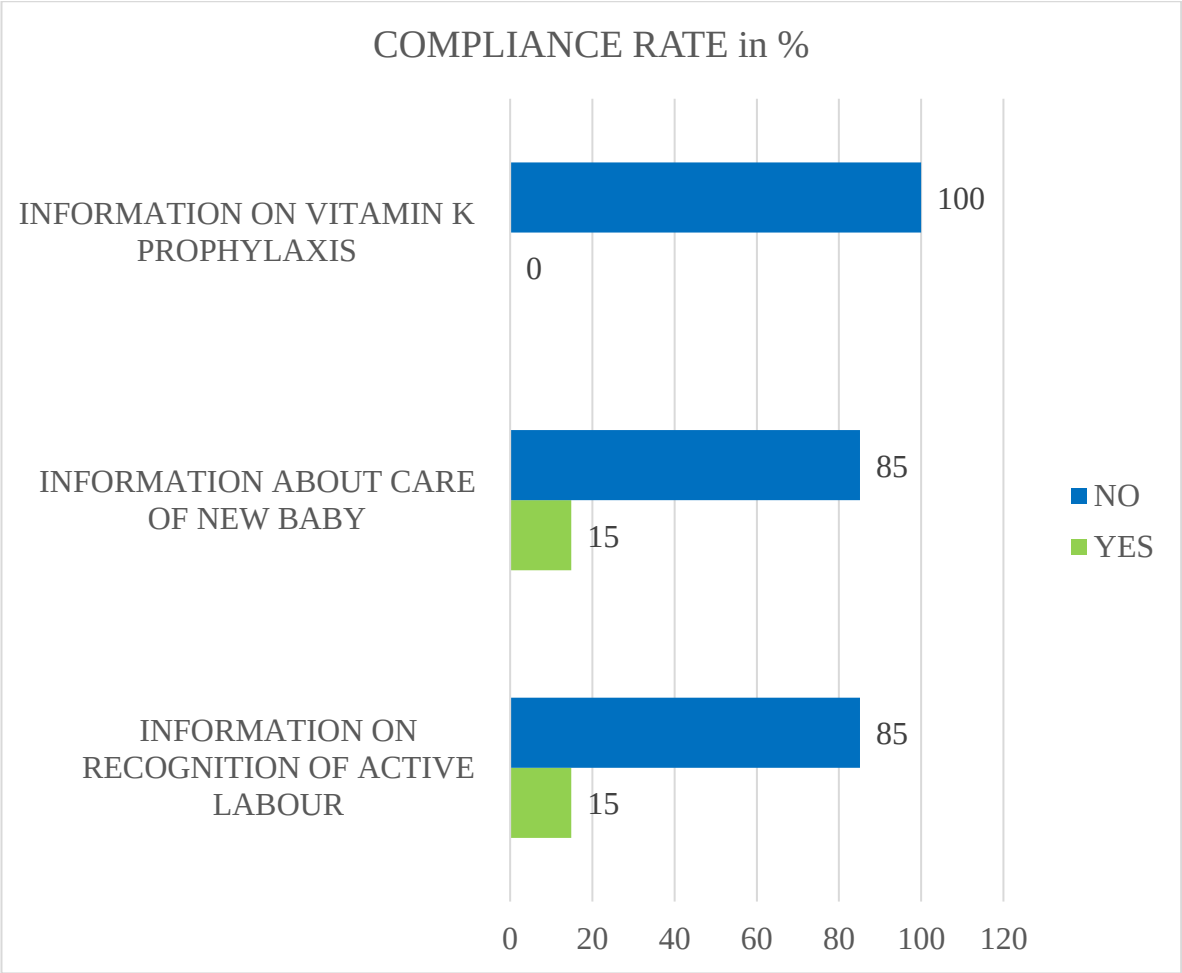
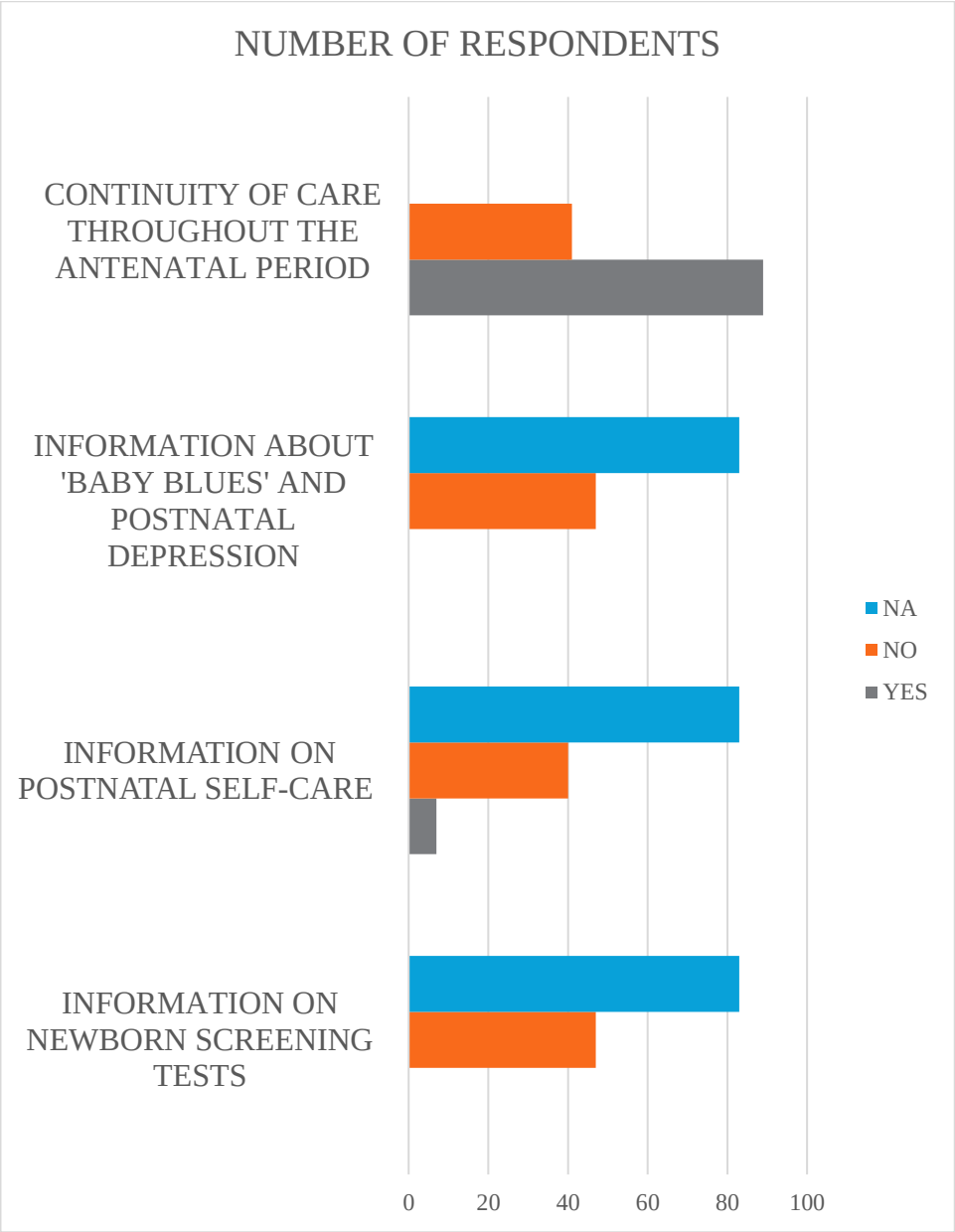


Figure: 6.33 Information Compliance

INTERPRETATION:

- Before or at 36 week majority of women were not given any information about Vit.K prophylaxis.
- Majority of women were not given any information about recognition of active labour or care of new baby.



Total N=130

Figure: 6.34 NUMBER OF RESPONDENTS

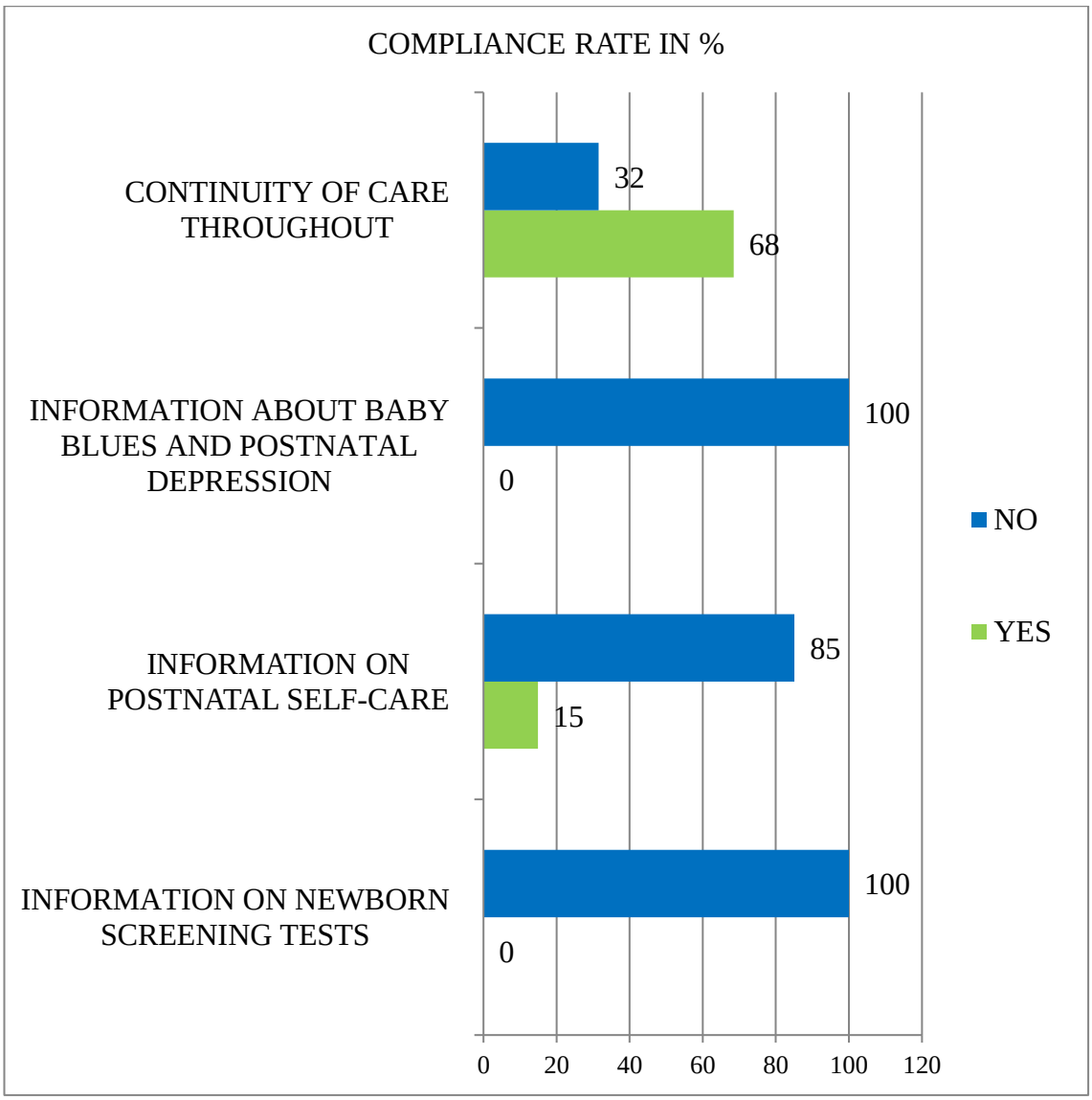


Figure: 6.35 Information Compliance

INTERPRETATION:

- There was no information given to any pregnant women regarding newborn screening test neither they were made aware about baby blues and post natal depression.
- In majority of case there no postnatal self-care information was given.
- In 68% of cases there was a continuity of care throughout the antenatal period.

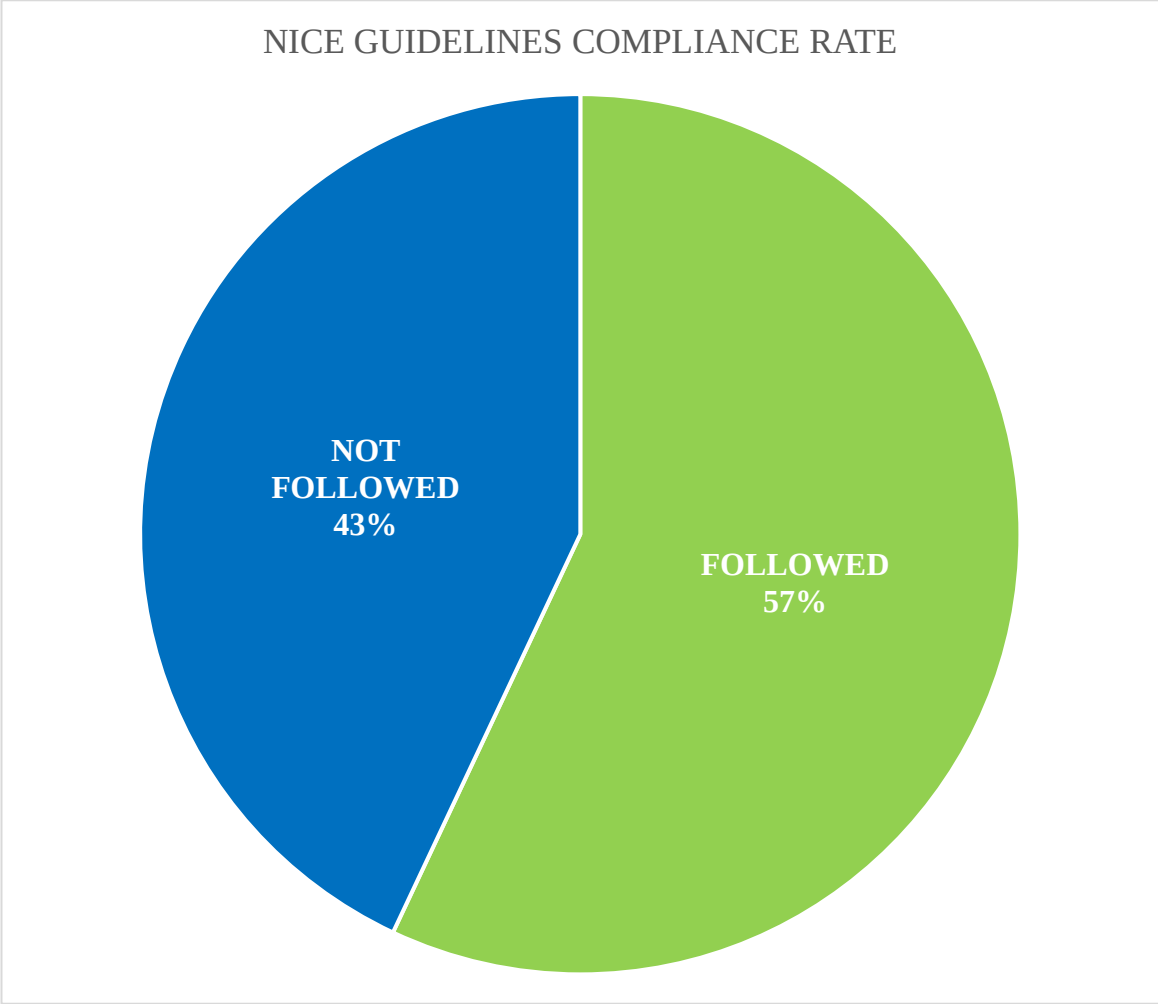


Figure: 6.36 NICE Guidelines Compliance Rate

- Antenatal care provided is 57% compliant with the NICE recommended guidelines.
- Almost half of the recommended guidelines are not being followed.

CHAPTER-7

GAPS IDENTIFIED

- Antenatal appointments did not had any structured or focused content neither any of the pregnant women received any written information about likely number, timing or content of these appointments.
- For both parous pregnancy or nulliparous pregnancy the frequency of appointment are not as per NICE recommended schedule and frequency.
- None of the pregnant women were contacted when they missed their appointment.
- No information is being given to pregnant women regarding
    - How baby develops during pregnancy.
    - Maternity rights and benefits.
    - Recognition of active labour
    - Care of new baby.
    - Preparation for labor and birth or breastfeeding.
    - Newborn screening test
    - Baby blues and post natal depression.
    - Postnatal self-care
    - Vit.K prophylaxis.
- Majority of women were not given any information about
    - Antenatal screenings
    - lifestyle considerations.
    - The correct use of seatbelts
- Body mass index was not calculated for any pregnant women, only weight of the women was recorded at each visit.

- Formal fetal- movement, Doppler ultrasound, cardiac anomalies, electronic monitoring of Fetal Heart Rate and after 24 weeks Ultrasound Scanning are being routinely offered.

- Majority of care providers do not offer
    - Atypical red-cell alloantibodies screening in early pregnancy regardless of Rhesus-D status.
    - OGTT was not offered again at 24-28 weeks.
    - Atypical red-cell alloantibodies screening again at 28^{th} week
- No mental health issues were discussed with any pregnant women.

- Majority of care providers were not offering that External Cephalic Version to single breech pregnancy.

CHAPTER-8

CONCLUSION

The antenatal care provided for uncomplicated pregnancy is only 57% compliant with the NICE guidelines.

There are some major non compliances that needs to be focussed on. The visit plan is not structured. The content of each appointment is not well defined. The frequency of visit is also much more than recommended. This leads to unnecessary wastage of scarce resources. Care provider have a very limited time to counsel the patient and to provide all the necessary information. Thus pregnant women is not able to take an informed decision.

CHAPTER-9

RECOMMENDATIONS

- A well-structured antenatal card should be given to the pregnant women at the first contact which has a detailed plan about the schedule, frequency and content of each appointment.
- A frequency of appointment should be as per NICE guidelines.
- A proper record of all the pregnant women should be maintained wherein if a women skips an appointment she can be contacted and next appointment can be scheduled.
- A proper plan should be made and included in the department protocol regarding providing relevant information to all pregnant women during their antenatal visits.
- A medical committee should be constituted that may review the routinely offered screenings that are not recommended by NICE guidelines and establish a protocol for the department based on best evidence based practices.
- Mental health issues should be given their due importance.

REFERENCES

1. Patel DM, Patel MM, Salat VK. Two year review of maternal mortality at a tertiary care hospital of GMERS, Valsad, Gujarat, India. Int J Reprod Contracept Obstet Gynecol 2018;7:2283-6.
2. Shelah S.Bloom et al. Does antenatal care makes a difference to safe delivery? A study in Uttar Pradesh, India. Health policy and Planning 14(1):38-48
3. Bhatia JC. Levels and causes of maternal mortality in Southern India. Studies in Family Planning 1993; 24: 310-18.
4. Anandalakshmy PN, Talwar PP, Buckshee K, Hingorani V. Demographic, socio-economic and medical factors affecting maternal mortality – an Indian experience. Journal of family welfare 1993: 39: 1-4.
5. Adeniran O.Fawole et al. Client's perception of the quality of Antenatal care.journal of national medical association 2008; 100: 1052-1058
6. Hall, Marion H. Rationalization of antenatal care. *The Lancet;* May 19, 2001; 357, 9268; Healthcare Administration Database.
7. Roger A. Atinga. Determinants of antenatal care Quality in Ghana. International journal of social economics 2013; 40:852-865.
8. Antenatal Care: http://www.ihatepsm.com/blog/antenatal-care
9. Components ofAntenatalCare: http://www.ihatepsm.com/blog/components-antenatal-care
10. Langer A, Nigenda G, Romero M et al. Conceptual bases and methodology for the evaluation of women's and providers' perception of the quality of antenatal care in the WHO Antenatal Care and randomised Controlled trial. Paed Perinat Epidemiol. 1998;12(suppl 2):98-115.

11. Langer A, Villar J, Romero M et al. Are women and providers satisfied with antenatal care? Views on a standard and a simplified, evidence based model of care in four developing countries. BMC Women's Health. 2002;2:7-16.
12. https://pathways.nice.org.uk/pathways/antenatal-care-for-uncomplicated-pregnancies
13. http://www.nhp.gov.in/sites/default/files/anm_guidelines.pdf

APPENDICES

TABLE A.1 PATIENT INTERVIEW AUDIT SHEET

AUDIT SHEET				
SNO.	QUESTIONS	YES	NO	N/A
1	DID THE STAFF/ DOCTOR CONTACTED YOU WHEN YOU HAVE MISSED AN APPOINTMENT			
2	DOES THE DOCTOR COMMUNICATES IS IN A LANGUAGE YOU UNDERSTAND			
3	DO YOU HAVE CONFIDENCE AND TRUST IN THE STAFF CARING FOR YOU			
4	WERE YOU INFORMED ABOUT THE PURPOSE OF TEST PRESCRIBED			
5	WERE YOU GIVEN AN OPPORTUNITY TO DISCUSS APPOINTMENT SCHEDULE			

TABLE A.2 DOCTOR QUESTIONNAIRE AUDIT SHEET

AUDIT SHEET				
SNO.	QUESTIONS	YES	NO	N/A
1	IS DOPPLER ULTRASOUND USED ROUTINELY			
2	IS FORMAL FETAL- MOVEMENT COUNTING OFFERED ROUTINELY			
3	IS ELECTRONIC FETAL HEART RATE MONITORING USED ROUTINELY			
4	IS WOMEN WHO HAVE AN UNCOMPLICATED SINGLETON BREECH PREGNANCY AT 36 WEEKS OFFERED EXTERNAL CEPHALIC VERSION EXCEPT WHEN WOMEN IS IN LABOUR OR IN A WOMEN WITH A UTERINE SCAR OR ABNORMALITY, FETAL COMPROMISE, RUPTURED MEMBRANES, VAGINAL BLEEDING AND MEDICAL CONDITIONS.			
5	IS ULTRASOUND SCREENING USED ROUTINELY AFTER 24 WEEKS OF GESTATION			
6	IS CROWN-RUMP LENGTH USED TO DETERMINE GESTATIONAL AGE			
7	IS HEAD CIRCUMFERENCE IS USED TO ESTIMATE GESTATIONAL AGE IF CROWN - RUMP LENGTH IS ABOVE 84mm			
8	IS WOMEN WITH UMCOMPLICATED PREGNANCY OFFERED INDUCTION OF LABOUR BEYOND 41 WEEKS			

Table A.2 continued

SNO.	QUALITY	YES	NO	NA
9	IS A VAGINAL EXAMINATION FOR MEMBRANE SWEEPING OFFERED PRIOR TO FORMAL INDUCTION OF LABOUR			
10	IS SCREENING FOR CARDIAC ANOMALIES USING NUCHAL TRANSLUCENCY RECOMMENDED ROUTINELY			
11	FROM 42 WEEKS, IN A WOMAN WHO DECLINE INDUCTION OF LABOUR IS INCREASED ANTENATAL MONITORING CONSISTING OF AT LEAST TWICE-WEEKLY CARDIOTOCOGRAPHY AND ULTRASOUND OFFERED			
12	IS WOMEN SCREENED FOR ATYPICAL RED-CELL ALLOANTIBODIES IN EARLY PREGNANCY REGARDLESS OF THEIR RHESUS D STATUS.			
13	IS WOMEN SCREENED FOR ATYPICAL RED-CELL ALLOANTIBODIES AGAIN AT 28 WEEKS REGARDLESS OF THEIR RHESUS D STATUS.			
14	IS ANTENATAL ANTI-D PROPHYLAXIS IS OFFERED TO ALL WHO ARE RHESUS D-NEGATIVE ROUTINELY			
15	IS PARTNER TESTING OFFERED IF A PREGNANT WOMAN IS RHESUS D-NEGATIVE			
16	IS SCREENING FOR SYPHILIS OFFERED TO ALL PREGNANT WOMEN AT AN EARLY STAGE			

Table A.2 continued

SNO.	QUALITY	YES	NO	NA
17	IS THE 'COMBINED TEST' (NUCHAL TRANSLUCENCY, BETA-HUMAN CHORIONIC GONADOTROPHIN, PREGNANCY-ASSOCIATED PLASMA PROTEIN-A) OFFERED TO SCREEN FOR DOWN'S SYNDROME			
18	WHEN IT IS NOT POSSIBLE TO MEASURE NUCHAL TRANSLUCENCY, IS WOMEN OFFERED SERUM SCREENING (TRIPLE OR QUADRUPLE TEST) BETWEEN 15 WEEKS 0 DAYS AND 20 WEEKS 0 DAYS			
19	IS SYMPHYSIS–FUNDAL HEIGHT MEASURED AND RECORDED AT EACH ANTENATAL APPOINTMENT FROM 24 WEEKS			
20	IS ULTRASOUND SCREENING FOR FETAL ANOMALIES IS ROUTINELY OFFERED, NORMALLY BETWEEN 18 WEEKS 0 DAYS AND 20 WEEKS 6 DAYS			
21	ARE PARTICIPANT-LED ANTENATAL CLASSES BEING ORGANISED			
22	IS FETAL PRESENTATION ASSESSED BY ABDOMINAL PALPATION AT 36 WEEKS OR LATER			
23	IS ULTRASOUND ASSESSMENT DONE TO CONFIRM SUSPECTED FETAL MALPRESENTATION.			

TABLE A.3 OBSERVATION AND RECORD REVIEW AUDIT SHEET

AUDIT SHEET				
SNO.	QUESTIONS	YES	NO	N/A
1	A SCHEDULE OF 10 APPOINTMENTS:NULLIPAROUS WITH UNCOMPLICATED PREGNANCY			
2	A SCHEDULE OF 7 APPOINTMENTS: PAROUS WITH UNCOMPLICATED PREGNANCY			
3	IS INFORMATION ABOUT ANTENATAL SCREENING PROVIDED ON A ONE-TO-ONE BASIS?			
4	IS PREGNANT WOMAN TREATED WITH RESPECT AND DIGNITY			
5	DOES WOMAN RECEIVE APPROPRIATE WRITTEN INFORMATION ABOUT THE LIKELY NUMBER, TIMING AND CONTENT OF ANTENATAL APPOINTMENTS			
6	DOES EACH ANTENATAL APPOINTMENT HAS STRUCTURED AND FOCUSED CONTENT.			
7	IS PREGNANT WOMEN INFORMED OF THEIR MATERNITY RIGHTS AND BENEFITS.			
8	DOES WOMEN CARRY THEIR OWN CASE NOTES			
9	DID PREGNANT WOMEN ASSSESSED ANC BY 10TH WEEK			
10	IS PREGNANT WOMEN INFORMED ABOUT THE CORRECT USE OF SEATBELTS			
11	IS WOMAN INFORMED THAT MOST CASES OF NAUSEA AND VOMITING IN PREGNANCY WILL RESOLVE SPONTANEOUSLY WITHIN 16 TO 20 WEEKS			

Table A.3 continued

SNO.	QUALITY	YES	NO	NA
12	IS WOMAN GIVEN INFORMATION ABOUT SELF-HELP AND NON-PHARMACOLOGICAL TREATMENTS FOR NAUSEA AND VOMITING?			
13	MATERNAL WEIGHT AND HEIGHT IS MEASURED AND THE WOMAN'S BODY MASS INDEX IS CALCULATED			
14	IS INFORMATION GIVEN ABOUT FOLIC ACID SUPPLEMENTATION AT FIRST CONTACT			
15	IS INFORMATION GIVEN ABOUT FOOD HYGIENE, INCLUDING HOW TO REDUCE THE RISK OF A FOOD-ACQUIRED INFECTION			
16	IS INFORMATION GIVEN ABOUT LIFESTYLE (WORKING, EXERCISE, SMOKING, SPORTSACTIVITIES, SEXUAL INTERCOURSE)			
17	IS INFORMATION GIVEN ABOUT ALL ANTENATAL SCREENING, INCLUDING SCREENING FOR HAEMOGLOBINOPATHIES, THE ANOMALY SCAN AND SCREENING FOR DOWN'S SYNDROME, AS WELL AS RISKS AND BENEFITS OF THE SCREENING TESTS.			
18	IS INFORMATION GIVEN ABOUT HOW THE BABY DEVELOPS DURING PREGNANCY			
19	IS INFORMATION IS GIVEN ABOUT NUTRITION AND DIET, INCLUDING VITAMIN D SUPPLEMENTATION FOR WOMEN AT RISK OF VITAMIN D DEFICIENCY			

Table A.3 continued

SNO.	3QUALITY	YES	NO	NA
20	IS PREGNANT WOMEN OFFERED SCREENING FOR ANAEMIA AT THE BOOKING APPOINTMENT			
21	IS SCREENING FOR SICKLE CELL DISEASES AND THALASSAEMIAS OFFERED TO ALL WOMEN AS EARLY AS POSSIBLE IN PREGNANCY.			
22	IS IRON SUPPLEMENTATION OFFERED ROUTINELY TO ALL PREGNANT WOMEN			
23	WHEN Hb LEVELS ARE OUTSIDE THE NORMAL RANGE FOR PREGNANCY, IS THE CAUSE INVESTIGATED AND IRON SUPPLEMENTATION IS CONSIDERED			
24	IS WOMEN OFFERED TESTING FOR BLOOD GROUP AND RHESUS D STATUS IN EARLY PREGNANCY.			
25	IS PREGNANT WOMEN GIVEN A CHOICE ABOUT PLACE OF BIRTH			
26	IS SCREENING FOR DOWN'S SYNDROME OFFERED BY THE END OF THE FIRST TRIMESTER 13 WEEKS 6 DAYS			
27	IS PREGNANT WOMEN IS OFFERED AN EARLY ULTRASOUND SCAN BETWEEN 10 WEEKS 0 DAYS AND 13 WEEKS 6 DAYS			
28	IS 75 G 2-HOUR OGTT OFFERED AS SOON AS POSSIBLE IN THE FIRST OR SECOND TRIMESTER.			
29	IS PREGNANT WOMEN SHOULD BE OFFERED SCREENING FOR ANAEMIA AT 28 WEEKS.			

Table A.3 continued

SNO.	QUALITY	YES	NO	NA
30	IS 75 G 2-HOUR OGTT OFFERED AT 24–28 WEEKS EVEN IF THE RESULTS OF THE FIRST OGTT ARE NORMAL.			
31	WERE MENTAL HEALTH ISSUES DISCUSSED.			
32	BEFORE OR AT 36 WEEKS DID PREGNANT WOMEN RECEIVED INFORMATION ABOUT BREASTFEEDING			
33	BEFORE OR AT 36 WEEKS DID PREGNANT WOMAN GIVEN INFORMATION ABOUT PREPARATION FOR LABOUR AND BIRTH, INCLUDING INFORMATION ABOUT COPING WITH PAIN IN LABOUR AND THE BIRTH PLAN			
34	BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ON RECOGNITION OF ACTIVE LABOUR			
35	BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION REGARDING CARE OF NEW BABY			
36	BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ABOUT VITAMIN K PROPHYLAXIS			
37	BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ABOUT NEWBORN SCREENING TESTS			
38	BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ABOUT POSTNATAL SELF-CARE			
39	BEFORE OR AT 36 WEEKS IS WOMAN MADE AWARE OF 'BABY BLUES' AND POSTNATAL DEPRESSION			
40	IS THERE CONTINUITY OF CARE THROUGHOUT THE ANTENATAL PERIOD?			

CONSENT

WRITTEN INFORMED CONSENT

1. I, _____ _____, agree to be part of

the study-

CLINICAL AUDIT ON ANTENATAL CARE PROVIDED FOR UNCOMPLICATED PREGNANCIES IN HEALTHCARE ORGANISATION

Conducted by Dr. Sneha Singh, student, IIHMR Delhi, for her PGDHM dissertation at Hospital, Delhi.

2. I have been explained the purpose of the study in the language that I understand and am willing be a part of the study.

3. I also understand that my personal details shall be extensively studied but will be kept confidential and will not be disclosed.

4. I shall not hold the conduct of study, the interviewer, the Department, treating doctors or the Hospital responsible for any adverse effects arising out of the study & its conclusions on the evaluation.

(SIGNATURE OR THUMB IMPRESSION)

Date:

Place:

TABLE A.4 PATIENT INTERVIEW DATA SHEET

GUIDELINES	YES	NO	NA
WOMEN CONTACTED BY DOCTOR/ NURSE IF THEY MISS A CHECK UP	0	88	42
WOMEN SPOKEN IN A LANGUAGE THEY UNDERSTAND	122	8	0
HAVE CONFIDENCE AND TRUST IN THE STAFF CARING	130	0	0
INFORM WOMEN ABOUT THE PURPOSE OF TEST	73	57	0
APPOINTMENTS SCHEDULE DISCUSSED WITH PREGNANT WOMEN.	40	90	0

TABLE A.5 CARE PROVIDER INTERVIEW DATA SHEET

GUIDELINES	YES	NO	NA
ROUTINE DOPPLER ULTRASOUND NOT USED IN LOW-RISK PREGNANCIES.	0	4	0
CROWN–RUMP LENGTH MEASUREMENT IS USED TO DETERMINE GESTATIONAL AGE	4	0	0
IF THE CROWN–RUMP LENGTH IS ABOVE 84 MM, THE GESTATIONAL AGE IS ESTIMATED USING HEAD CIRCUMFERENCE	4	0	0
ROUTINE FORMAL FETAL-MOVEMENT COUNTING IS NOT BE OFFERED.	0	4	0
ALL WOMEN WHO HAVE AN UNCOMPLICATED SINGLETON BREECH PREGNANCY AT 36 WEEKS SHOULD BE OFFERED EXTERNAL CEPHALIC VERSION.(WITH EXCEPTIONS TAKEN INTO CONSIDERATION)	1	3	0
ROUTINE USE OF ANTENATAL ELECTRONIC FETAL HEART RATE MONITORING (CARDIOTOCOGRAPHY) FOR FETAL ASSESSMENT IN WOMEN WITH AN UNCOMPLICATED PREGNANCY IS NOT OFFERED.	0	4	0
ROUTINE USE OF ULTRASOUND SCANNING AFTER 24 WEEKS OF GESTATION IS NOT OFFERED.	0	4	0
WOMEN WITH UNCOMPLICATED PREGNANCIES IS OFFERED INDUCTION OF LABOUR BEYOND 41 WEEKS.	3	1	0

Table A.5 continued

GUIDELINES	YES	NO	NA
PRIOR TO FORMAL INDUCTION OF LABOUR, WOMEN IS OFFERED A VAGINAL EXAMINATION FOR MEMBRANE SWEEPING.	4	0	0
FROM 42 WEEKS, WOMEN WHO DECLINE INDUCTION OF LABOUR IS OFFERED INCREASED ANTENATAL MONITORING.	3	0	1
ROUTINE SCREENING FOR CARDIAC ANOMALIES USING NUCHAL TRANSLUCENCY IS NOT RECOMMENDED.	0	4	0
THE 'COMBINED TEST' (NUCHAL TRANSLUCENCY, BETA-HUMAN CHORIONIC GONADOTROPHIN, PREGNANCY-ASSOCIATED PLASMA PROTEIN-A) SHOULD BE OFFERED TO SCREEN FOR DOWN'S SYNDROME BETWEEN 11 WEEKS 0 DAYS AND 13 WEEKS 6 DAYS.	4	0	0
WHEN IT IS NOT POSSIBLE TO MEASURE NUCHAL TRANSLUCENCY, OWING TO FETAL POSITION OR RAISED BODY MASS INDEX, WOMEN IS OFFERED SERUM SCREENING (TRIPLE OR QUADRUPLE TEST) BETWEEN 15 WEEKS 0 DAYS AND 20 WEEKS 0 DAYS	4	0	0
WOMEN IS SCREENED FOR ATYPICAL RED-CELL ALLOANTIBODIES AGAIN AT 28 WEEKS, REGARDLESS OF THEIR RHESUS D STATUS.	1	3	0

Table A.5 continued

GUIDELINES	YES	NO	NA
SCREENING FOR SYPHILIS IS OFFERED TO ALL PREGNANT WOMEN AT AN EARLY STAGE	4	0	0
ULTRASOUND SCREENING FOR FETAL ANOMALIES IS ROUTINELY OFFERED, NORMALLY BETWEEN 18 WEEKS 0 DAYS AND 20 WEEKS 6 DAYS	4	0	0
PARTICIPANT-LED ANTENATAL CLASSES	4	0	0
SYMPHYSIS–FUNDAL HEIGHT SHOULD BE MEASURED AND RECORDED AT EACH ANTENATAL APPOINTMENT FROM 24 WEEKS.	4	0	0
FETAL PRESENTATION SHOULD BE ASSESSED BY ABDOMINAL PALPATION AT 36 WEEKS OR LATER	4	0	0
SUSPECTED FETAL MALPRESENTATION SHOULD BE CONFIRMED BY AN ULTRASOUND ASSESSMENT.	4	0	0
ROUTINE ANTENATAL ANTI-D PROPHYLAXIS IS OFFERED TO ALL WHO ARE RHESUS D-NEGATIVE	4	0	0
WOMEN IS SCREENED FOR ATYPICAL RED-CELL ALLOANTIBODIES IN EARLY PREGNANCY REGARDLESS OF THEIR RHESUS D STATUS.	1	3	0
IF A PREGNANT WOMAN IS RHESUS D-NEGATIVE, OFFER PARTNER TESTING	4	0	0

TABLE A.6 OBSERVATION AND RECORD REVIEW DATA SHEET

GUIDELINES	YES	NO	NA
PREGNANT WOMEN ASSESSING ANC BY 10TH WEEK O DAYS	130	0	0
A SCHEDULE OF 10 APPOINTMENTS:NULLIPAROUS WITH UNCOMPLICATED PREGNANCY	0	76	54
A SCHEDULE OF 7 APPOINTMENTS: PAROUS WITH UNCOMPLICATED PREGNANCY	0	54	76
INFORMATION ABOUT ANTENATAL SCREENING PROVIDED ON A ONE-TO-ONE BASIS.	130	0	0
PREGNANT WOMAN TREATED WITH RESPECT AND DIGNITY	130	0	0
WOMAN RECEIVE APPROPRIATE WRITTEN INFORMATION ABOUT THE LIKELY NUMBER, TIMING AND CONTENT OF ANTENATAL APPOINTMENTS	17	113	0
EACH ANTENATAL APPOINTMENT HAS STRUCTURED AND FOCUSED CONTENT.	0	130	0
PREGNANT WOMEN INFORMED OF THEIR MATERNITY RIGHTS AND BENEFITS.	0	130	0
WOMEN CARRY THEIR OWN CASE NOTES	130	0	0
PREGNANT WOMEN INFORMED ABOUT THE CORRECT USE OF SEATBELTS	9	121	0
WOMAN INFORMED THAT MOST CASES OF COMMON AILMENTS IN PREGNANCY WILL RESOLVE SPONTANEOUSLY	111	19	0
WOMAN GIVEN INFORMATION ABOUT SELF-HELP AND NON-PHARMACOLOGICAL TREATMENTS	111	19	0

Table A.6 continued

GUIDELINES	YES	NO	NA
MATERNAL WEIGHT AND HEIGHT IS MEASURED AND THE WOMAN'S BODY MASS INDEX IS CALCULATED	0	130	0
INFORMATION GIVEN ABOUT FOLIC ACID SUPPLEMENTATION AT FIRST CONTACT	130	0	0
INFORMATION GIVEN ABOUT FOOD HYGIENE	84	46	0
INFORMATION GIVEN ABOUT LIFESTYLE	37	93	0
INFORMATION GIVEN ABOUT ALL ANTENATAL SCREENING.	49	81	0
INFORMATION GIVEN ABOUT HOW THE BABY DEVELOPS DURING PREGNANCY	12	118	0
INFORMATION IS GIVEN ABOUT NUTRITION AND DIET	130	0	0
PREGNANT WOMEN OFFERED SCREENING FOR ANAEMIA AT THE BOOKING APPOINTMENT	124	0	6
SCREENING FOR SICKLE CELL DISEASES AND THALASSAEMIAS OFFERED TO ALL WOMEN AS EARLY AS POSSIBLE IN PREGNANCY.	118	0	12
IRON SUPPLEMENTATION OFFERED ROUTINELY TO ALL PREGNANT WOMEN	120	10	0
WHEN Hb LEVELS ARE OUTSIDE THE NORMAL RANGE FOR PREGNANCY, IS THE CAUSE INVESTIGATED AND IRON SUPPLEMENTATION IS CONSIDERED	67	0	63
WOMEN OFFERED TESTING FOR BLOOD GROUP AND RHESUS D STATUS IN EARLY PREGNANCY.	109	0	21

Table A.6 continued

GUIDELINES	YES	NO	NA
PREGNANT WOMEN GIVEN A CHOICE ABOUT PLACE OF BIRTH	87	0	43
SCREENING FOR DOWN'S SYNDROME OFFERED BY THE END OF THE FIRST TRIMESTER 13 WEEKS 6 DAYS	75	0	55
PREGNANT WOMEN IS OFFERED AN EARLY ULTRASOUND SCAN BETWEEN 10 WEEKS 0 DAYS AND 13 WEEKS 6 DAYS	109	0	21
75 G 2-HOUR OGTT OFFERED AS SOON AS POSSIBLE IN THE FIRST OR SECOND TRIMESTER.	124	0	6
PREGNANT WOMEN SHOULD BE OFFERED SCREENING FOR ANAEMIA AT 28 WEEKS.	47	0	83
75 G 2-HOUR OGTT OFFERED AT 24–28 WEEKS EVEN IF THE RESULTS OF THE FIRST OGTT ARE NORMAL.	12	35	83
MENTAL HEALTH ISSUES DISCUSSED.	0	130	0
BEFORE OR AT 36 WEEKS DID PREGNANT WOMEN RECEIVED INFORMATION ABOUT BREASTFEEDING	7	40	83
BEFORE OR AT 36 WEEKS DID PREGNANT WOMAN GIVEN INFORMATION ABOUT PREPARATION FOR LABOUR AND BIRTH	7	40	83
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ON RECOGNITION OF ACTIVE LABOUR	7	40	83
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION REGARDING CARE OF NEW BABY	7	40	83
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ABOUT VITAMIN K PROPHYLAXIS	0	47	83

Table A.6 continued

GUIDELINES	YES	NO	NA
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ABOUT NEWBORN SCREENING TESTS	0	47	83
BEFORE OR AT 36 WEEKS IS WOMAN GIVEN INFORMATION ABOUT POSTNATAL SELF-CARE	7	40	83
BEFORE OR AT 36 WEEKS IS WOMAN MADE AWARE OF 'BABY BLUES' AND POSTNATAL DEPRESSION	0	47	83
THERE CONTINUITY OF CARE THROUGHOUT THE ANTENATAL PERIOD.	89	41	0