

**A dissertation on
“To assess the Haemoglobin status of pregnant
women at the time of delivery Bhopal.”**

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• ABBREVIATION

ANC	Ante-natal care
DH	District hospital
CMHO	Chief medical health officer
J.P.	Jai Prakash
DD	Deputy director
HB	haemoglobin
PREG	PREGNANT
PPH	POST PARTUM HEMORRHAGE
C.S.	CIVIL SURGEON
IFA	IRON FOLIC ACID
CA++	CALCIUM
B/W	BETWEEN
I.S.	IRON SUCROSE
TAB	TABLETS
NFHS	NATIONAL FAMILY HEALTH SURVEY

NRHM	NATIONAL RURAL HEALTH MISSION
NUHM	NATIONAL URBAN HEALTH MISSION
NHM	NATIONAL HEALTH MISSION
NHM MP	NATIONAL HEALTH MISSION MADHYA PRADESH

OBJECTIVE OF DISSERTATION

- The objective of dissertation is to give practical experience to the candidate in handling the managerial issues which likely to come up day to day in the working as a health manager.
- Three months of extensive training is provided to us with the chance to meet different set of people within or outside of the organization like field for data collection.
- We came to know the practicality of the health care mission running in our country specially in Madhya Pradesh.
- To understand the working of programme running for maternal health in NHM-MP and provide real field experience of working with full efficiency and effectiveness
- Get the opportunity to learn from the key person of maternal health department
- To enhance the professional and managerial skill.



“BACK GROUND

- Anaemia in pregnancy is an important public health problem worldwide. Women often become anaemic during pregnancy because the demand for iron and calcium is increased due to physiological burden of pregnancy. The inability to meet the required nutrition in pregnancy has a significant impact on the health of the mother as well as of the foetus. This is particularly in developing countries like in India prevalence of anaemia is 51% (as per global nutrition report). In Madhya Pradesh the anaemia prevalence among women is 56%(as per NFHS 3) and anaemia among pregnant women is more than 80% in Bhopal (as per National health survey)
- Due to which Madhya Pradesh is having high MMR of 221/1 lac (as per SRS 2011-13). Postpartum haemorrhage is one the major cause of it and Anaemia during pregnancy is the cause for preterm delivery. To overcome it Indian government is providing IFA tablets to decrease it. This cross-sectional descriptive study was conduct in 'District Hospital, (JP Hospital) Bhopal. To determine the haemoglobin status of pregnant women before delivery and to assess the consumption of iron-folic-acid tablets, calcium tablets & Causes behind the non-consumption of IFA and calcium tablets."



Literature review



- So many research has been conducted over this topic like “Haemoglobin status and predictors of anaemia among pregnant women in Mpigi, Uganda’. In this research study the women’s of 3rd trimester was involved but comparison with the previous haemoglobin status was not taken.
- ‘Prevalence of anaemia in pregnant women and its effect on neonatal outcomes in Northeast India.’ This study gives very good guidance for conduction of study and its effects on neonates, but the comparison of supplementation status was not performed
- Study Iron status of pregnant Indian women from an area of active iron supplementation, provide clear cut route for study purpose with sample size of 221
- This study includes tribal population of India along with supplementation status provided by government. effects are also mentioned in this study. It shows improvement in haemoglobin status of pregnant women with effects of supplementation strategy. this study will give base guideline to conduct study in this kind of research
- “Study of helminthiasis in pregnancy and its correlation with haemoglobin level” the government is providing free albendazole to remove any worm infestation, worm infestation leads to remove the effect of supplementation strategy. So, this study also plays an important source and data of information.
- Iron deficiency anaemia at admission for labour and delivery is associated with an increased risk for Caesarean section and adverse maternal and neonatal outcomes. This study is helpful to know the maximum complication occurs at the time of delivery due iron deficiency anaemia and give very interesting way of sampling.”

RESEARCH PROBLEM: -

- In India prevalence of anaemia is 51% (as per global nutrition report). About 830 women *die* from pregnancy or childbirth-*related* complications around the world every day. (as per 16th March 2017 National Health Portal).
- 35% of total MMR is contributed by postpartum haemorrhage (as per WHO), government is providing free supplements to increase the haemoglobin status of pregnant women, There for We want to measure the haemoglobin status of pregnant women at the time of delivery and total number of IFA and calcium tablets consumed.

- **RESEARCH QUESTION :-**

what is the HB status of pregnant women at the time of delivery and to measure the supplementation intake, related to anaemia control provided by government.

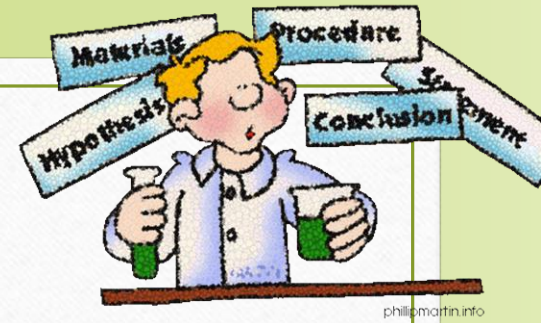
- **RATIONALE:-**

In Madhya Pradesh the anaemia prevalence among women is 56%(as per NFHS 3) To reduce maternal deaths government is providing free IFA tablets. Supplements are reaching about 85% of the targeted beneficiaries in Madhya Pradesh (as per report of world journals.com 2018). still the anaemia among pregnant women is more than 80% in Bhopal (as per National health survey). This study will help to identify the percentage of anaemia among pregnant women before delivery . It gives information regarding non-consumption of IFA, iron sucrose need, albendazole & calcium tablets and regarding medication taking from private or government.

“OBJECTIVES

- To measure the prevalence of anemia during 3rd trimester of pregnancy.
- To measure the compliances of IFA tablets, calcium tablets and factor related to the non compliances of both the tablets and its availability as per the women.
- To assess the gap duration between calcium and iron intake by pregnant women
- To assess albendazole consumption.
- To assess the needed dose of iron sucrose provided to the pregnant women.

METHODOLOGY



DURATION OF STUDY 1 month

STUDY DESIGN:-

It is a cross sectional Descriptive Observational Study because the data collection includes recent hemoglobin status and the base data for comparison is taken from the guideline for treatment of anemia by government in Madhya Pradesh

TECHNIQUE: convenience sampling

INCLUSION CRITERIA-

inclusion of women of third trimester who had her ANC from J.P. Hospital and also who came for delivery purpose to the same are included in sample.”

EXCLUSION CRITERIA:-

Those women who did not have ANC check-up from J.P. Hospital are excluded because the MCP card are not filled completely so that the missing details can be find out from the registers of same hospital, within one month it will be difficult to get the details from other hospitals also so that only those women who received ANC from J.P. Hospital are included. Seriously ill women with other disease are not included in sample. Women’s with non consent are excluded.

AREA OF STUDY: - Bhopal District

Study population: -

Women received ANC and now in third trimester pregnancy attending a tertiary healthcare institution for delivery care.

SOURCE OF DATA: -

MCP card

HB test before delivery

Personal interview

SAMPLE SIZE:-

Total no of women during study the available time duration, eligible for the inclusion criteria
(130 pregnant women)



- **personally administered structured questionnaire is used as a tool for data collection.**
- **Verbal consent is taken from the patient than interview is conducted than questionnaire is filed by data collector .**

Details are filled for pregnant women on the basis of information obtained from personal interview and MCP card. The pregnant women who qualify the gestational time- period, from the beginning of at the time of delivery. data will be recorded in the mentioned format”.”.

As per the guideline for anaemia treatment by NHM-MP with HB status and treatment

FLOW CHART OF DATA COLLECTION

verbal consent is taken

Interview is conducted with women who delivered previous day



from PNC ward the case file of the patient has been taken



Than data from ANC card is taken



MCP card is taken for data collection from women



Than in registers the data was checked for validity

Time of pregnancy	Haemoglobin status				
	>11 g/dl	9-11 g/dl	7-8.9 g/dl	5-6.9 g/dl	<5 g/dl
1 ST TRIMESTER	Folic acid 400 µgm				BLOOD TRANSFUSION

As per the guideline for anaemia treatment by NHM-MP with HB status and treatment

Time of pregnancy	Haemoglobin status				
	>11 g/dl	9-11 g/dl	7-8.9 g/dl	5-6.9 g/dl	<5 g/dl
2 ND TRIMESTER	In 17 high priority districts IFA 1 tablet / day + 100gm iron and 1.5 mg folic acid for Rest of the district Ferus sulphate 100mg iron +500µmg	IFA 2 tablets /day 17high priority district ferrous ascorbate 100 gm iron+1.5 mg folic acid In rest of the district Ferus sulphate 100 mg iron+500µgm	I V iron sucrose 200mg, 2 to 3 doses (alternative day) Than IFA 1 tablet / day Until HB gets normal	I V iron sucrose 200mg, 4 to 5 doses (alternative day) Than IFA 1 tablet / day Until HB gets normal	BLOOD TRANSFUSION

Time of pregnancy	Haemoglobin status				
	>11 g/dl	9-11 g/dl	7-8.9 g/dl	5-6.9 g/dl	<5 g/dl
3 rd trimester to delivery	IFA 1 tablet / day In 17 high priority district ferrous ascorbate IFA 1 tablet / day + 100gm iron and 1.5 mg folic acid Rest district Ferus sulphate 100mg iron +500µmg	IFA 2 tablets /day In 17 high priority district ferrous ascorbate IFA 1 tablet / day + 100gm iron and 1.5 mg folic acid Rest district Ferus sulphate 100mg iron +500µmg	I V iron sucrose 200mg, 2 to 3 doses (alternative day) Than IFA 1 tablet / day Until HB gets normal	I V iron sucrose 200mg, 4 to 5 doses (alternative day) Than IFA 1 tablet / day Until HB gets normal	BLOOD transfusion If pregnancy is of more than 36 weeks And blood transfusion for women having below 7 gm HB

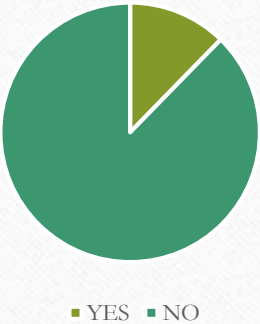
METHOD:-

- The Pregnant women who came delivery purpose, details are taken from the MCP and ANC Card and based on personnel interview, personally administered structured questionnaire is used as a tool for data collection and then from registers the missing data was find out. for recent HB status the case report of the patient who admitted for delivery is taken than Verbal consent is taken from the patient than interview is conducted than questionnaire is filed by data collector. The current haemoglobin level, was measured during ANC check-up is noted down, Near the obstetric care providing area. From MCP card the information is taken like name and age with reg. no. id, husbands name, previous haemoglobin in gram % with number of consumed IFA tablets etc. In this way data will be collected. status of hemoglobin and the base data for comparison is taken from the previous hemoglobin status as mentioned on MCP card, and the information like calcium intake and its duration of gap from IFA tablet, iron sucrose intake and albendazole intake this information will take from MCP card and on the personal interview.
- The data will be analysed on above basis and then also separate compression done based on number of IFA Tablets consumed by the pregnant women. The average percentage of anaemic women will be find out with above mentioned criteria. This way we can find out number of high risk pregnancy and the consumption of IFA tablets was proper or not. Through this we can find out the percent of women are using gov supplied medicine, else they are taking from private medical stores. The availability of medicine by the 1st line worker from the government is also measured from the women's point of view.

Iron sucrose received by pregnant women and its need

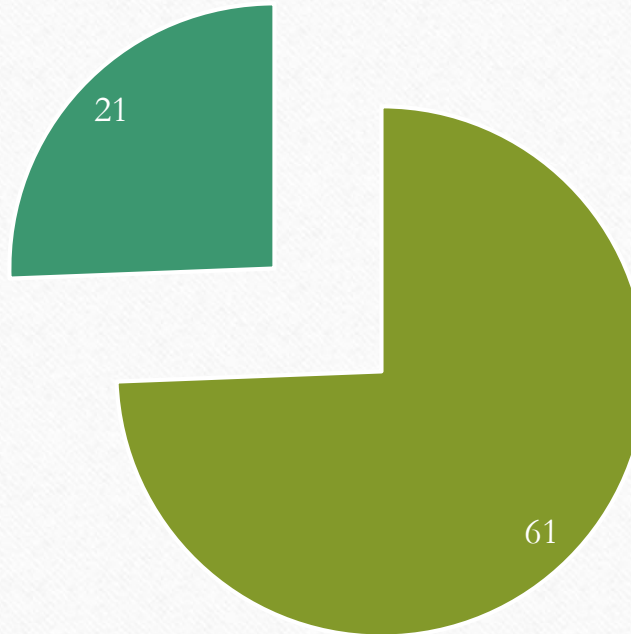
		RECEIVED IRON SUCROSE		
	frequency	Percent	TOTAL NEEDED DOSE AS PER GUIDLINE	ACTUAL RECIVED DOSE
Yes	16	12%	61	21
No	114	88%		

RECIVED IRON SUCROSE



No=88% 114 womens
Yes=12% 16 womens

NEEDED AND RECIVED IRON SUCROSE



■ TOTAL NEEDED DOSE AS PER GUIDLINE

■ ACTUAL RECIVED DOSE

PERCENTAGE OF ALBENDAZOLE INTAKE

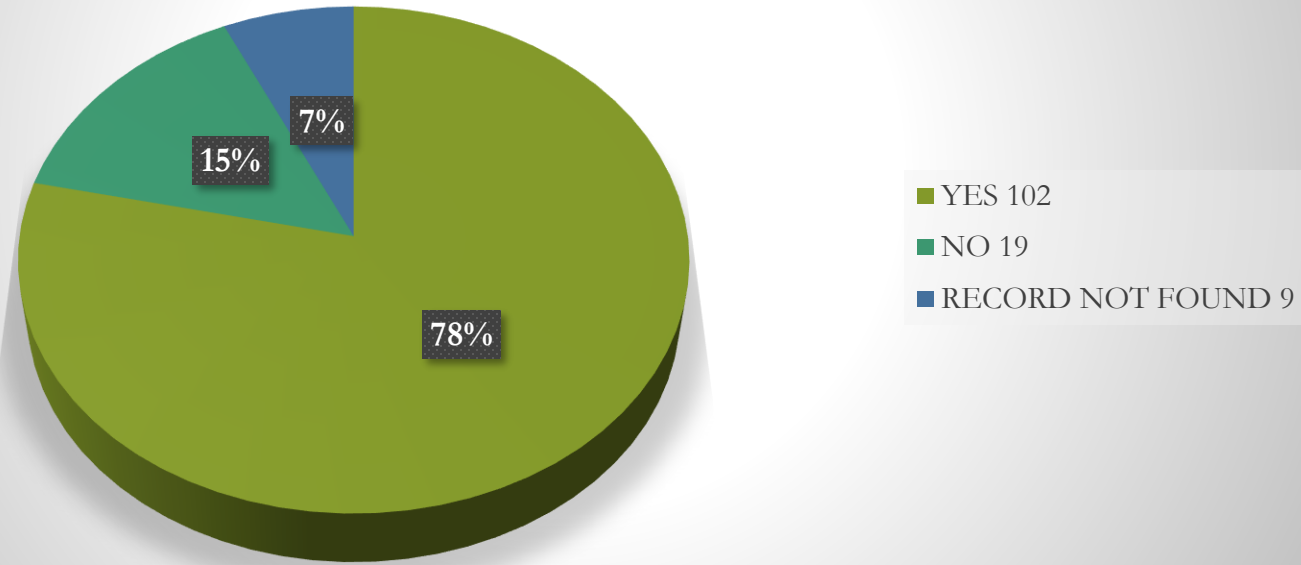
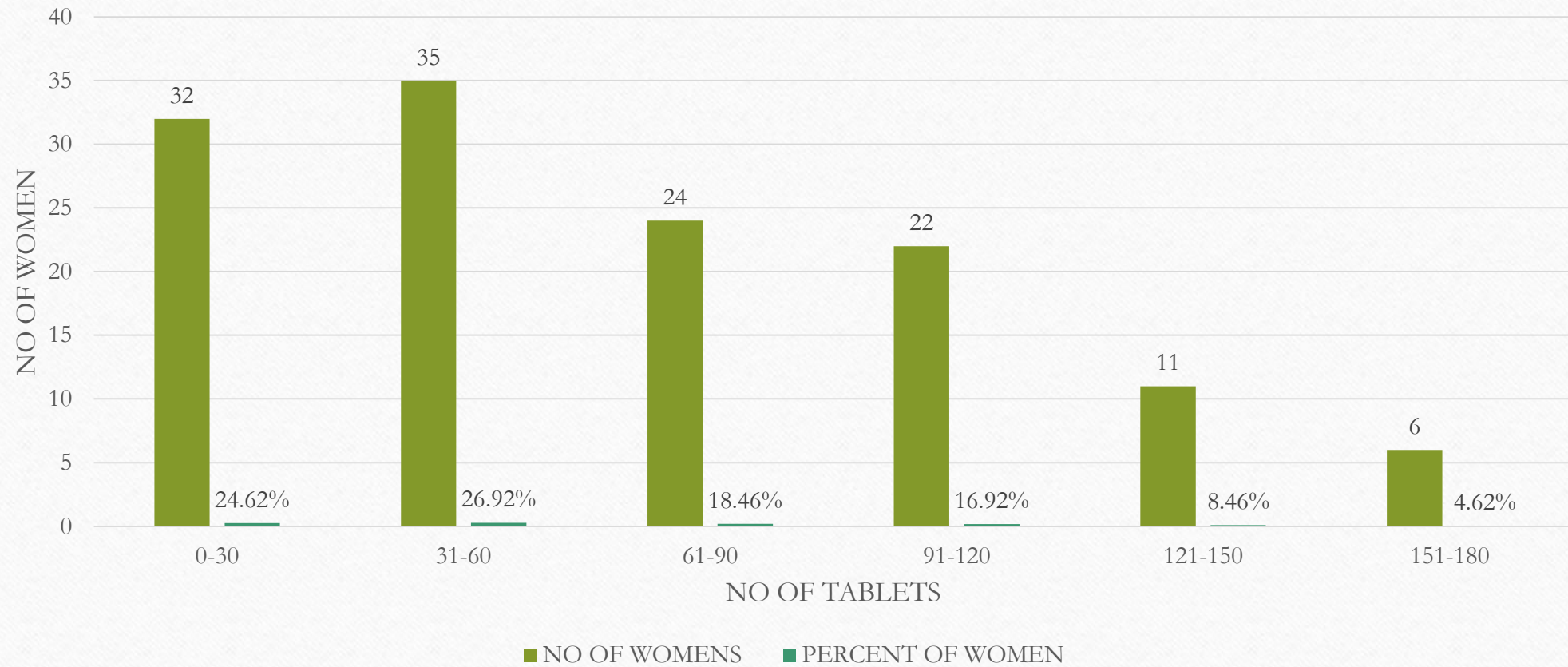


Chart represent the percentage of albendazole intake by pregnant women.
(400 mg single dose in 2nd trimester)

NO OF CALCIUM TABLETS INTAKE BY PREGNANT WOMEN

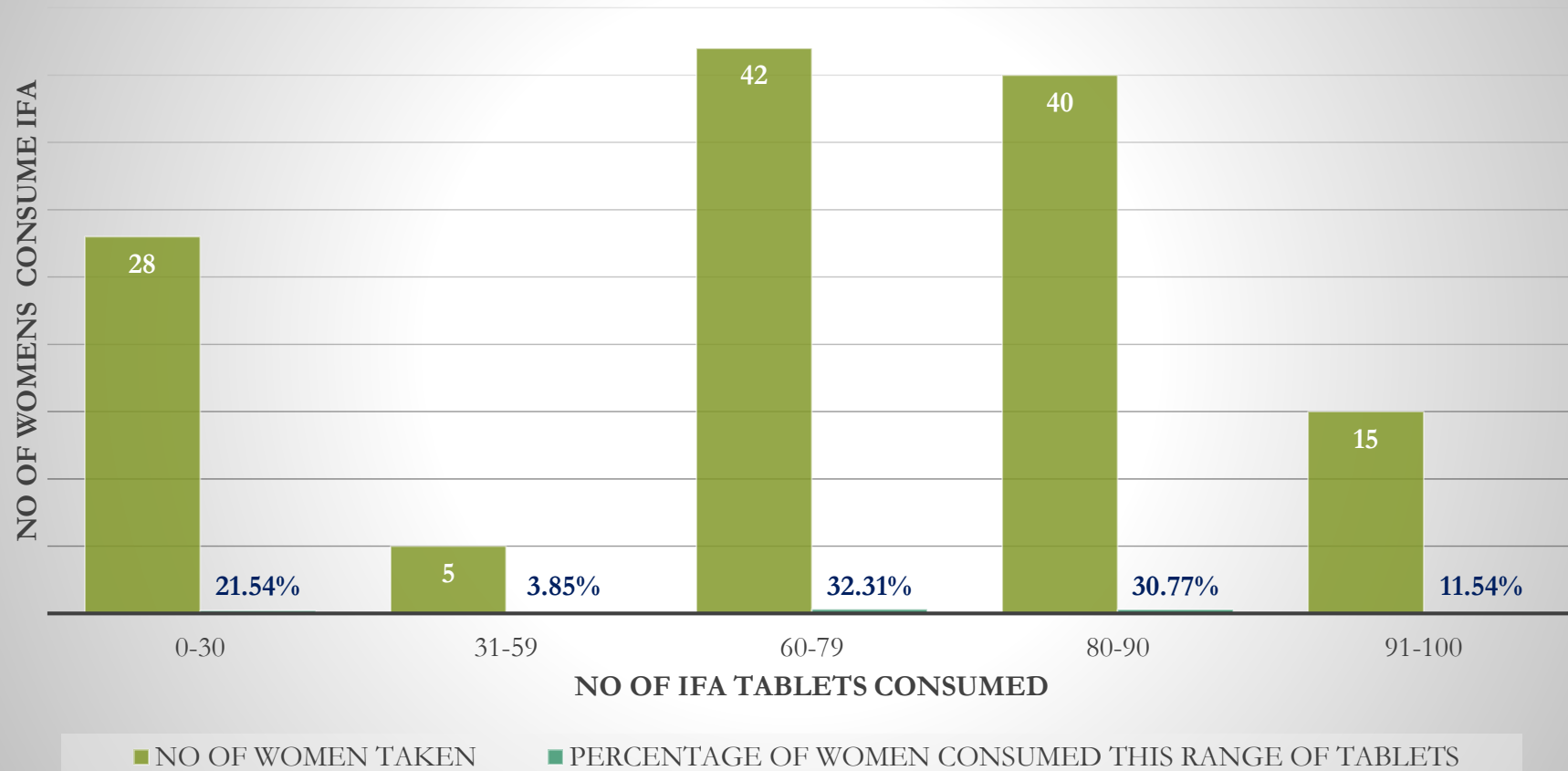


IN CALCIUM TABLETS
CONSUMPTION WAS LESS

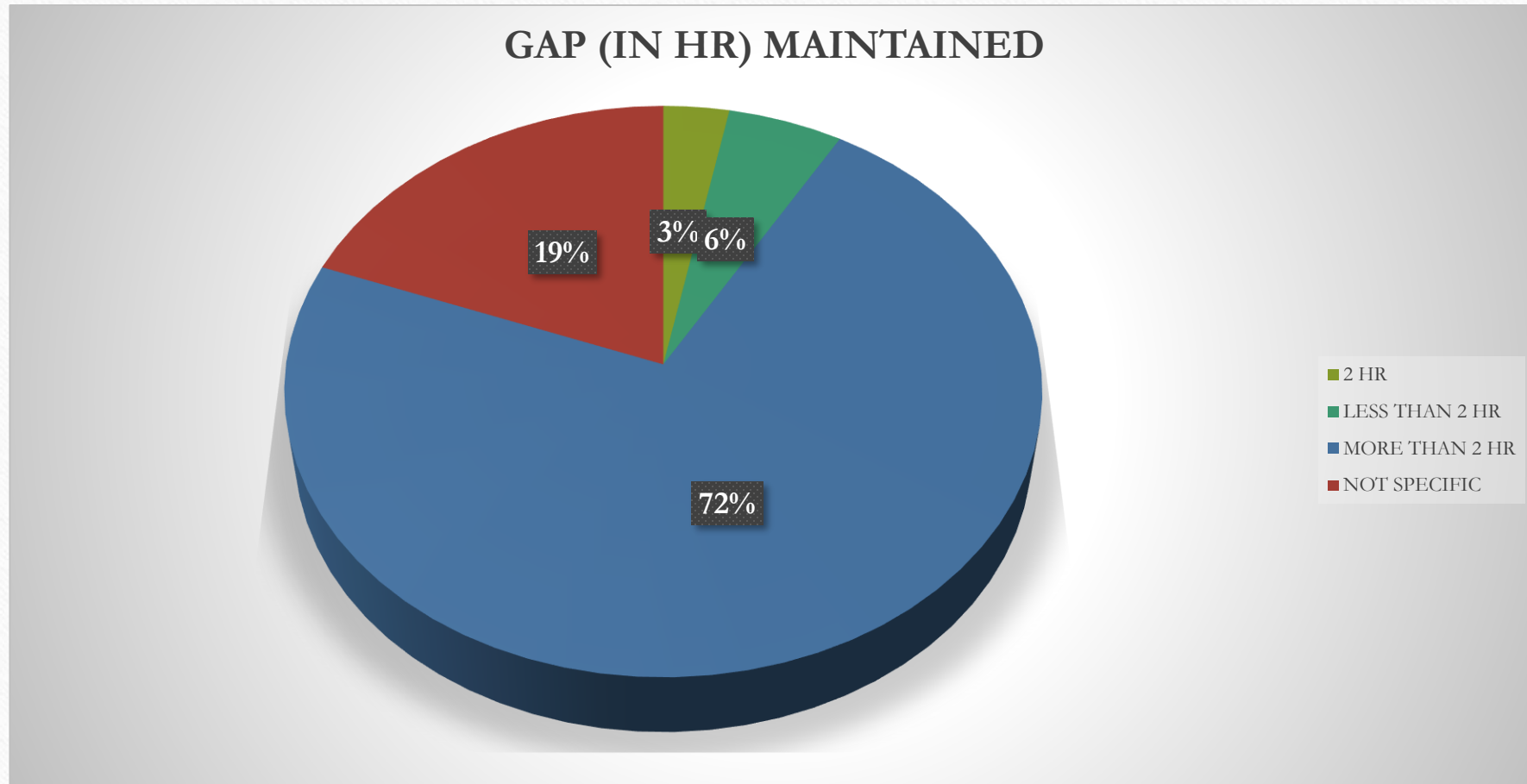
TOTAL CUNSUMPTION DEFICITE		
23400	IDEALY	
9858	CONSUMED	
13542	DEFICITE	

	NO OF IFA TABLETS CONSUME	
RANGE OF TABLETS	NO OF WOMEN TAKEN	PERCENTAGE OF WOMEN CONSUMED THIS RANGE OF TABLETS
0-30	28	21.54%
31-59	5	3.85%
60-79	42	32.31%
80-90	40	30.77%
91-100	15	11.54%
TOTAL	130	100%

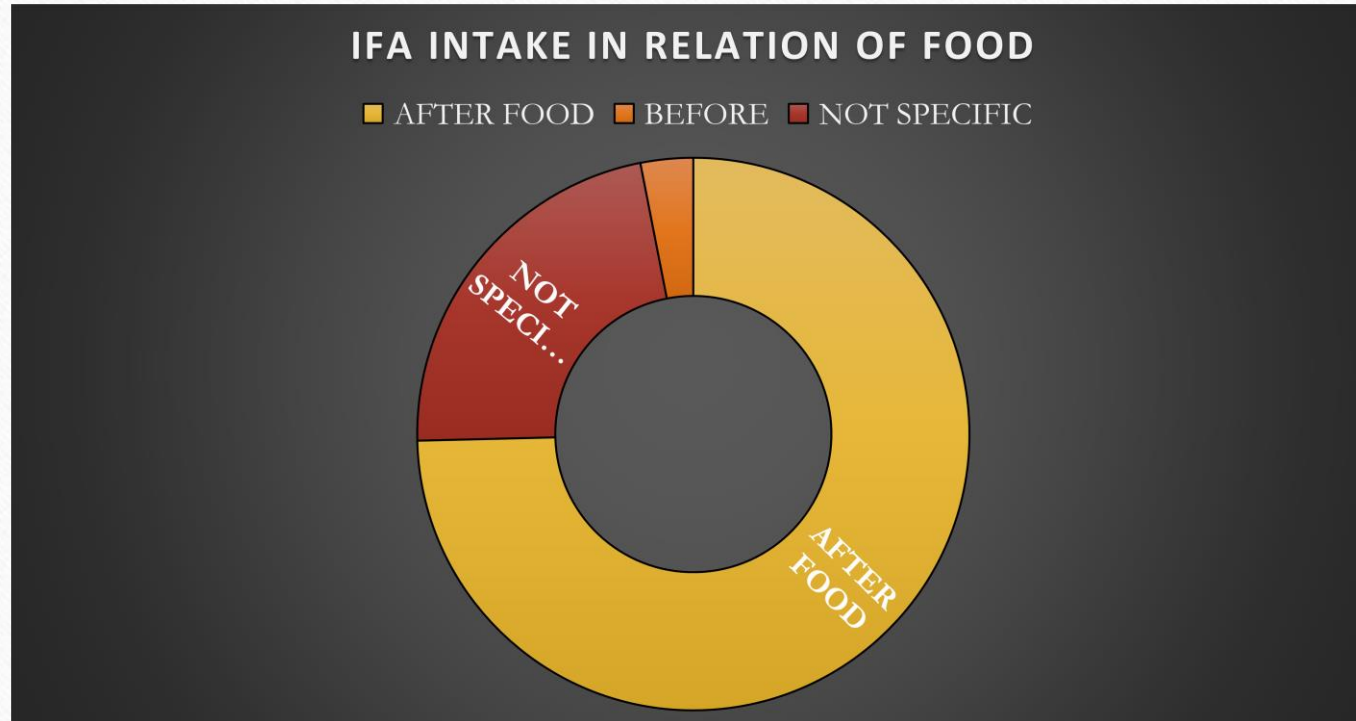
IFA TABLETS CUNSUMPTION



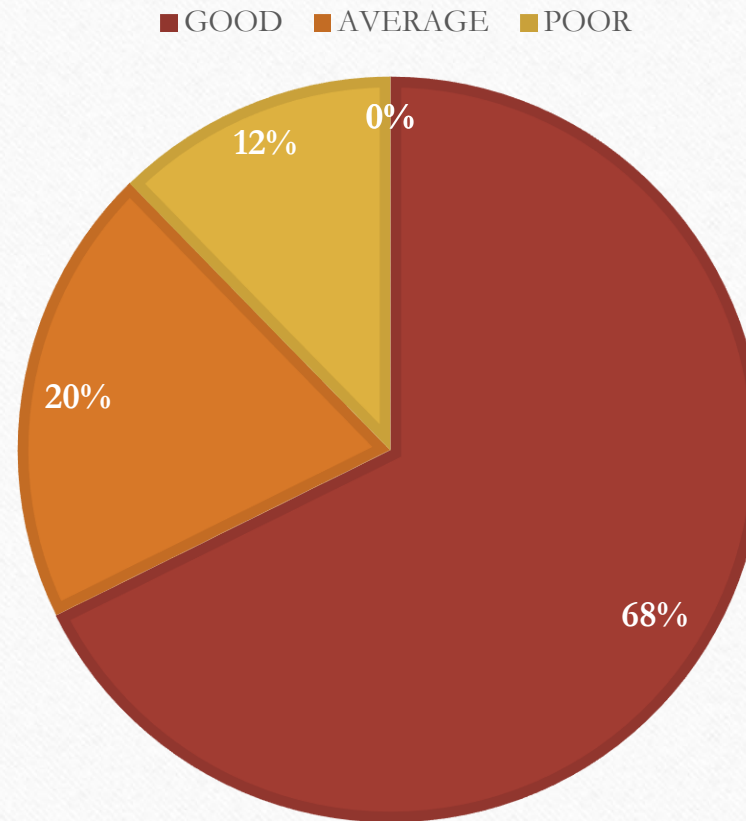
Gap maintained in between it and calcium tablets intake



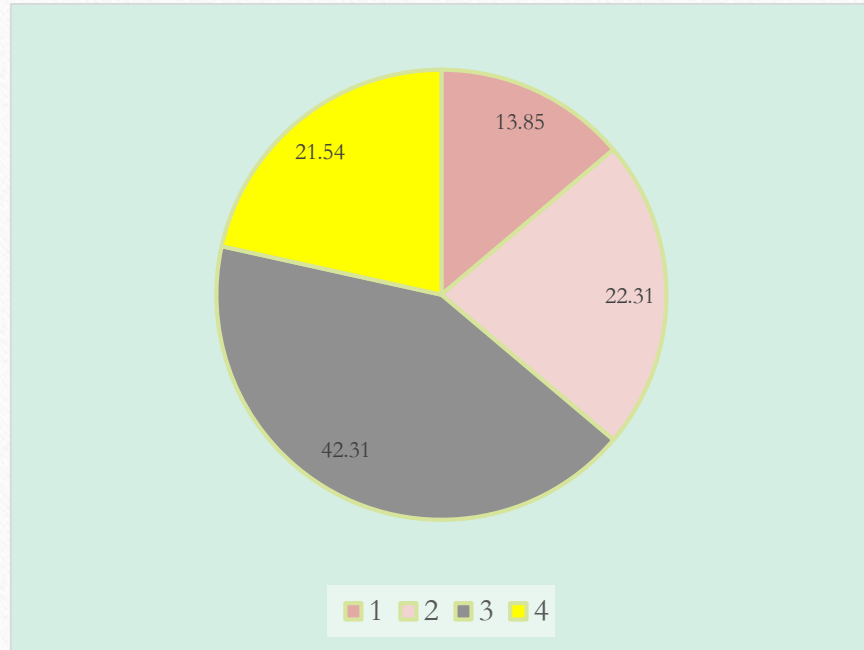
IFA intake in relation of food intake by women



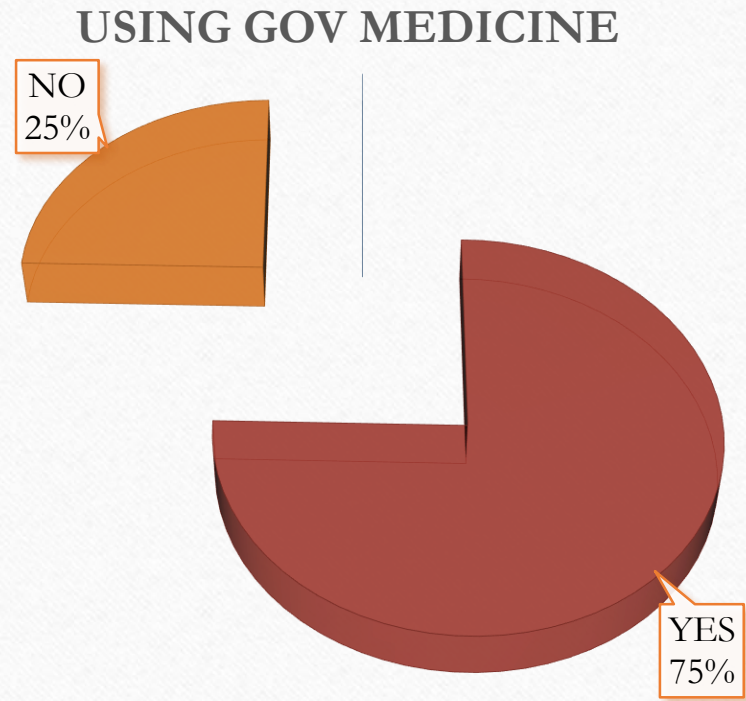
Availability of IFA tablets



REASON FOR NON-CONSUMPTION OF IFA				
REASON	NO OF WOMEN HAD	PERCENTAGE OF WOMEN OUT OF 36		
HEART BURN	7	19%		
NEUSIATING	12	33%		
ERRUCTATION	2	6%		
ODOR	8	22%		
LESS AVILABILITY	5	14%		
NOT SPECIFIC ANS	2	6%		
TOTAL NO OF WOMEN NOT CONSUMED IFA	36			



PERCENTAGE OF ANC RECIVED



BLOOD TRANSFUSION IS RECIVED WHEN REQUIRED(BELOW 5 GRAM HB) NOT SUCH SPECIFIC DATA WAS FIND OUT IN 1 MONTH BECAUSE BELOW THE HB LAVEL OF 5 GM PERCENT THE BLOOD SHOULD BE GIVEN, AND IT SHOULD BE GIVEN UNTILL IT REACH THE MINIMUM LAVEL OF IRON SUCROSE CAN BE GIVE THAT IS MINIMUM 5 GRAM PERCENT

15 WOMEN HAD SOME OTHER HEALTH ISUUES DURING PREGNANCY OUT OF130

SUMMARY OF FINDINGS: -

The study was conducted in district hospital of Bhopal, with the sample size of 130 pregnant women's. On the basis of collected data from J.P. Hospital Bhopal it is observe that before delivery 6.92% women were majorly anaemic and having 3 to 7.9 gram % HB status. The women's account for 23.58% are moderately anaemic and having 8 to 9.9 gram % HB status. It was also found that 60% women are mild anaemic with HB level of 10 to 11.9 gram %. 9.23% pregnant women are having normal HB status.

This study represent that 78.46% women consumed and 14.6% did not consumed albendazole during their 2nd trimester. In addition to it was observed that Hospital, MCP and ANC card combinedly were not having any record regarding albendazole intake of 7% women. Those women who did not consume albendazole are found more anaemic than women who consumed albendazole by 14%.

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CONTI.....

It was observed on the basis of personal interview and MCP card data that 24.62% women consumed 0-30 tablets and 26.92% women consumed 31-60 tablets and 18.46% women consumed 61-90 tablets. It was also found that only 4.62% women consumed 151-180 tablets and 8.46% women consumed 121-150 tablets and 16.92% women consumed 91-120 tablets. among 130 women's ideally calcium tablets consumption should be 23400(180 tablets per women) but actual consumption found 9858 tablets, there for 13542 tablets were not consumed tablets. It was also found in interview that availability of calcium tablets was good by 66.15% women's, average by 22.31% women's and poor by 11.54%.so around 34% non-consumption was due to the less availability of calcium tablets.

From the data filled based on interview it can be interpreted that 21.54% women consumed 0-30 IFA tablets and 3.85% women consumed 31-59 IFA tablets and 32.31% Women's consumed 60-79 tablets. It was also observed that 30.77% women consumed 80-90 tablets and only 11.54% women consumed 91-100 IFA tablets. It is clearly seen in data that those women's who consumed more IFA tablets there HB status was comparatively better than those who consumed less IFA tablets.

CONTI.....

3% women accepted that they consume IFA and calcium tablets at approximately 2 hr interval and 5% women consume the same tablets with less than 2 hr interval. It was also found that 72% women maintain more than 2 hr gap in between both the tablets and 195 women's do not maintain any specific time Gap In between IFA and calcium tablets. It was found based on interview that 75% women's consumed IFA tablets after food intake and 3% women consumed IFA before food and 22% women do not maintain any specific pattern to intake the IFA and food. total 33 women's out of 130, did not take IFA tablet after food, out of them 7 women had complain of heart burn. Availability of IFA tablets were good as per 68% women's, average as per 20% women and poor as per 12% women.

As per data the reason for non-consumption IFA tablets among 36 women was, heart burn for 19%, nauseating for 33% women, eructation for 6% women's, odour for 22%, less availability for 14% and not specific for 6% women's. It was also observed that 75.38% out of 130 consumed medicine provided by government and rest 24.61% women purchase it from shops.

It was observed that 13.85% women had 4 ANC visit, 22.31% women had 3 ANC visit and 42.31% women had 2 ANC visit and 21.54% women had only 1 ANC visit.”

As per the HB status 12% women's need iron sucrose with total needed dose as per guidelines (7-9 hb ,2-3 doses and 5-7 hb, 4-5 doses) are 61. only 21 doses are received by pregnant women's. “Blood transfusion is received when required (below 5-gram hb) not such specific data was found in 1 month because below the hb level of 5 gm percent the blood should be given, and it should be given until it came to minimum 5-gram percent. It was also found that 15 women had some other health issue out of 130 women's.

SUGGESTION:-

MCP card can be filled with proper information. the information given by women sometime did not match with the entries found on MCP card, in this condition the data provided by women was considered. It will be better if filled completely and correctly.

Women's too, ANC k medicine from 1st line workers but did not consumed because of above mentioned reasons. It can be corrected via counselling and treatment if needed

Pattern of intake of IFA in relation of food and gap maintained in between IFA and Calcium tablets can be corrected by counselling and proper guidance regarding intake time by 1st line worker

HB status in all 3 trimesters should be noted on MCP or ANC card

Registration no of ANC card and hospital registration no can have some link or ANC card number can be mentioned on case study so that the correlation and back tracking will be feasible.

LIMITATION OF THE STUDY:-

This study is conducted within 1 month, so the sample size is less and only convenience sampling was done. For data collection there was period of 15 days, average 15 deliveries per day takes place. Only those women who received ANC from J.P. Hospital are included in sample. Because the details are find out from case report of the women, personal interview, MCP card card and registers of ANC record in hospital. Sometimes during data collection, the information mismatch, in this situation women's answer was taken as data because on card sometime is found that women consumed tablets but during personnel interview they admitted that they did not consume because of specified reason. In this study we are limited to the answers of women and availability of data from one hospital only. The availability of gov supplies medicine can not be properly estimated because here is no, 1st line workers opinion data was collected. it is a cross sectional study, so it can give the recent situation analysis Previous situation can not be measured by this.

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THANK
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