

ASSESSMENT OF LBW AMONG NEONATES IN DISTRICT BHARUCH, GUJARAT

**An assessment for early intervention to improve
Health indicators**

**SUMMITTED BY:
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21ST BATCH
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**UNDER THE GUIDANCE
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INTRODUCTION

- Low birth weight (LBW) is defined by the [World Health Organization](#) as a [birth weight](#) of an infant of 2,499 g or less, regardless of gestational age.
- Its subcategories includes : very low birth weight (VLBW), which is less than 1500 g , and extremely low birth weight (ELBW), which is less than 1000 g
- Various studies reveals that Low birth weight is a major health determinant of infant mortality.



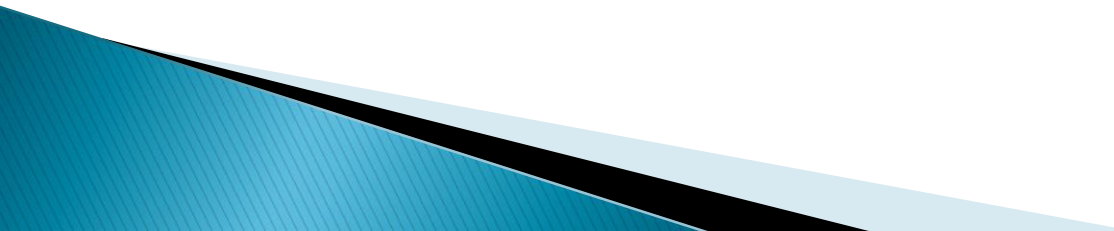
SIGNIFICANCE IN PUBLIC HEALTH

- ▶ In public health it is a strong predictor of neonatal long term health outcome
- ▶ Various studies reveals that the risk of mortality increases as the birthweight decreases; very low birthweight infants (1,500 grams or less) are at greatest risk .
- ▶ In addition to greater risk of mortality LBW also increases the greater risk of illness among infants.

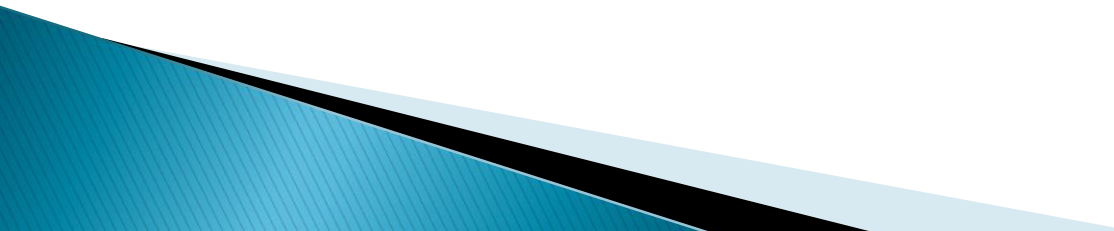
RATIONALE

- ▶ Low birth weight is the major health determinant of neonatal health.
- ▶ In Bharuch district LBW is found to be 23% at present and is one among the major contributing factor of mortality as well as morbidity in a District.
- ▶ Further it is found that LBW has 20% higher risk of death than normal babies, so taking this into consideration there is a need to assess different factors in the district related to maternal health which are the contributing factors leading to poor neonatal health outcomes.

OBJECTIVES

- ▶ The overall objective of the study is to assess the recent situation of LBW among neonates in Bharuch districts of Gujarat.
 - ▶ The specific objectives are:
 - To study the possible factors affecting low birth weight among neonates in the district.
 - To suggest the innovative solutions for improving LBW cases at district Bharuch.
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RESEARCH QUESTIONS

- ▶ What is the reason for rising neonatal lowbirth weight cases in district Bharuch since last year (April, 2017 to March, 2018)?
 - ▶ What are the factors associated with low birth weight cases in district Bharuch?
 - ▶ What is the impact of maternal health problems on neonatal health focusing on LBW?
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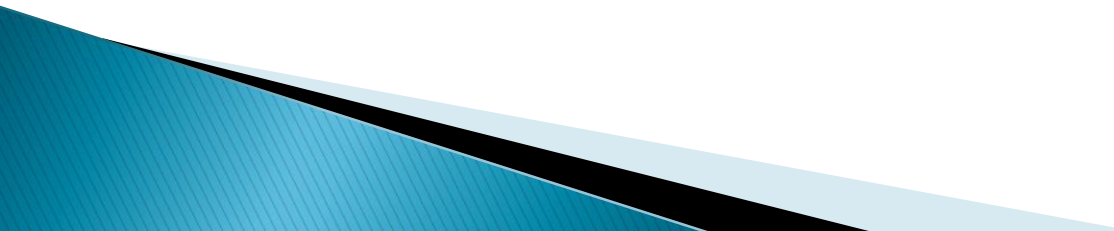
DATA AND METHODOLOGY

- ▶ **Secondary (DHS, Bharuch and Journal/Articles) and Primary Data** collected from 9 Taluks of Bharuch.

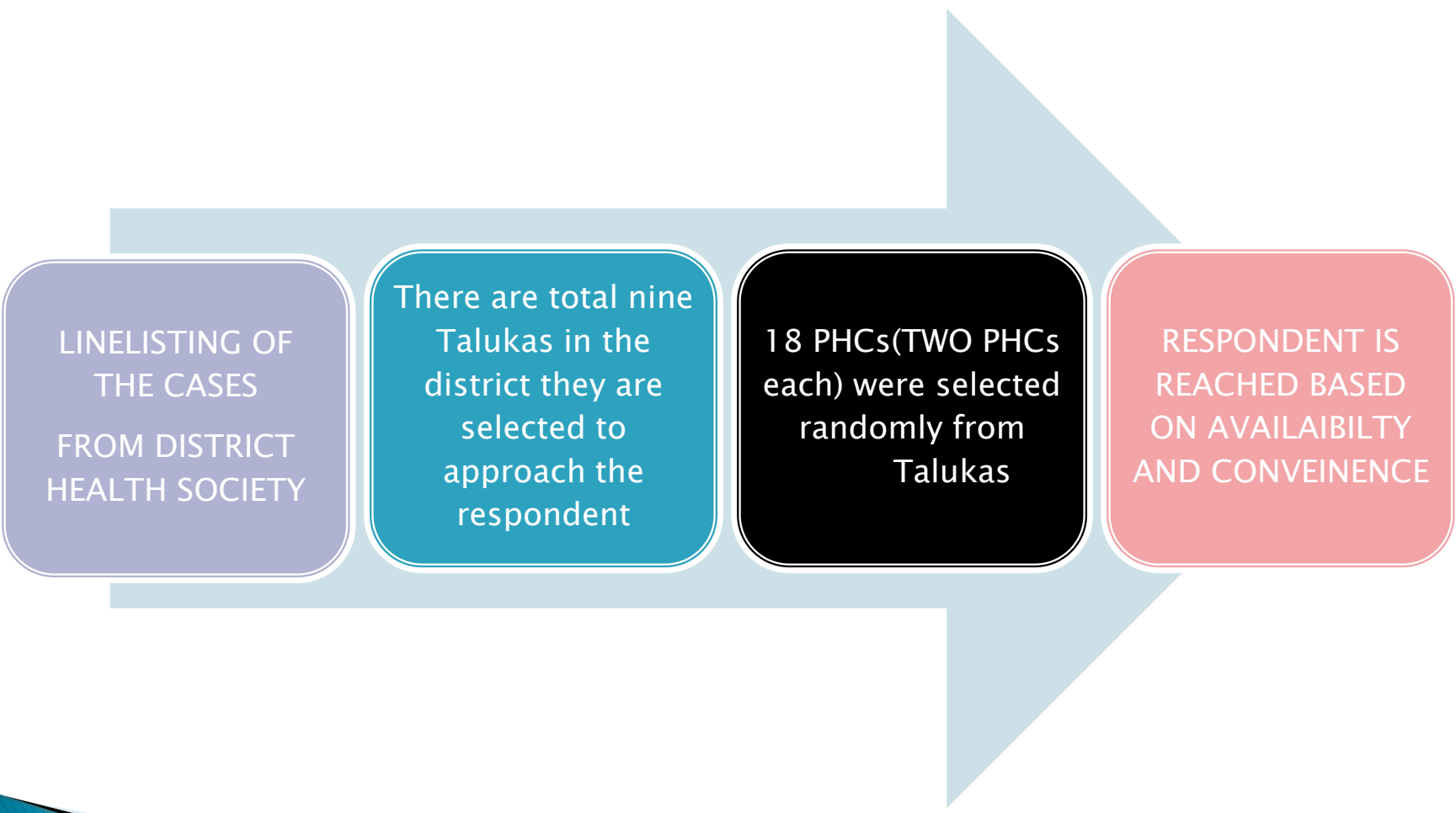
- ▶ **Primary data:**

THE STUDY DESIGN is “Descriptive” which is used to assess the frequency and distribution of a LBW cases in a defined population of Bharuch.

- ▶ Cross-sectional data was collected on the study population at a single point in time to examine the relationship of LBW and other variables of interest.
- ▶ Data was collected using a **pretest** structured questionnaire after taking the consent of the participants, the tool was translated from **English to Gujarati** for the better and effective result.

- ▶ The **questionnaire is prepared based on** certain socio-economic and cultural **factors**, health indicators such as Anemia, high risk pregnancies, ANC registration, utilization of services during ANC period, Family Planning, Gap between two children, dietary factors, education status of both husband and mother, Age of the mother, Gravida, Iron folic acid consumption and other maternal factors that are responsible to affect the health of neonate.
 - ▶ Then the data is entered, cleaned and analyzed using MS Excel and SPSS software. The study area was selected using purposive sampling. The study period is of 90 days i.e 05/02/2018 to 06/05/2018.
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METHOD OF SAMPLING



LINELISTING OF
THE CASES
FROM DISTRICT
HEALTH SOCIETY

There are total nine
Talukas in the
district they are
selected to
approach the
respondent

18 PHCs(TWO PHCs
each) were selected
randomly from
Talukas

RESPONDENT IS
REACHED BASED
ON AVAILAIBLTY
AND CONVEINENCE

▶ **STUDY AREA:**

The study was carried out in 9 Talukas of Bharuch District, Gujarat.

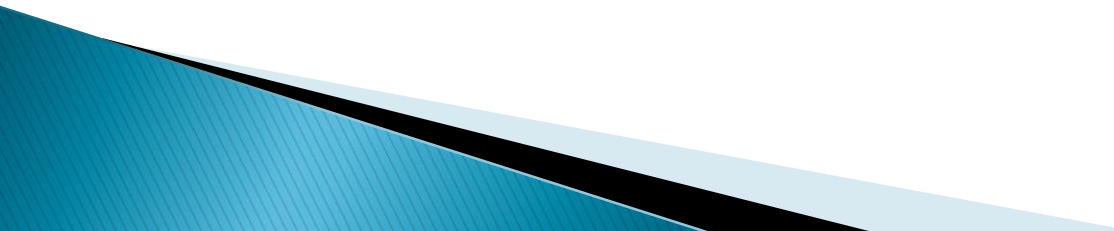
▶ **SAMPLING POPULATION:**

It includes all the PNC mothers of different Talukas who has delivered normal and LBW child in past four months time period.

EXCLUSION CRITERIA The study excludes still birth and preterm babies who are born low birth in the four months time period.

▶ **SAMPLE SIZE:**

Sample size includes: **131 PNC mothers** who delivered LBW and normal child in past four months. At the same time sample is compared with the last one year data available at District Health society. Further the loopholes in the District is analyzed after complete situation analysis which in turn helps to develop an action plan.



▶ **TOOLS:**

Structured Questionnaire and Available data of District Health Society was used as a tool. The study type is quantitative, containing both closed and open ended questions.

▶ **DATA COLLECTION:**

The **primary data** for this study was gathered through structured interview conducted face to face.

Secondary data: The secondary data for this study was gathered through different national and international research articles and journals and at the same time data available at District Health society was collected, compiled and analyzed.

▶ **DATA ENTRY:**

After filling the questionnaire, with the help of face to face interview from the respondent the data entry was done on the EXCEL sheet on daily basis. After completion of data entry the data was imported to SPSS software for further analysis.

▶ **DATA CLEANING:**

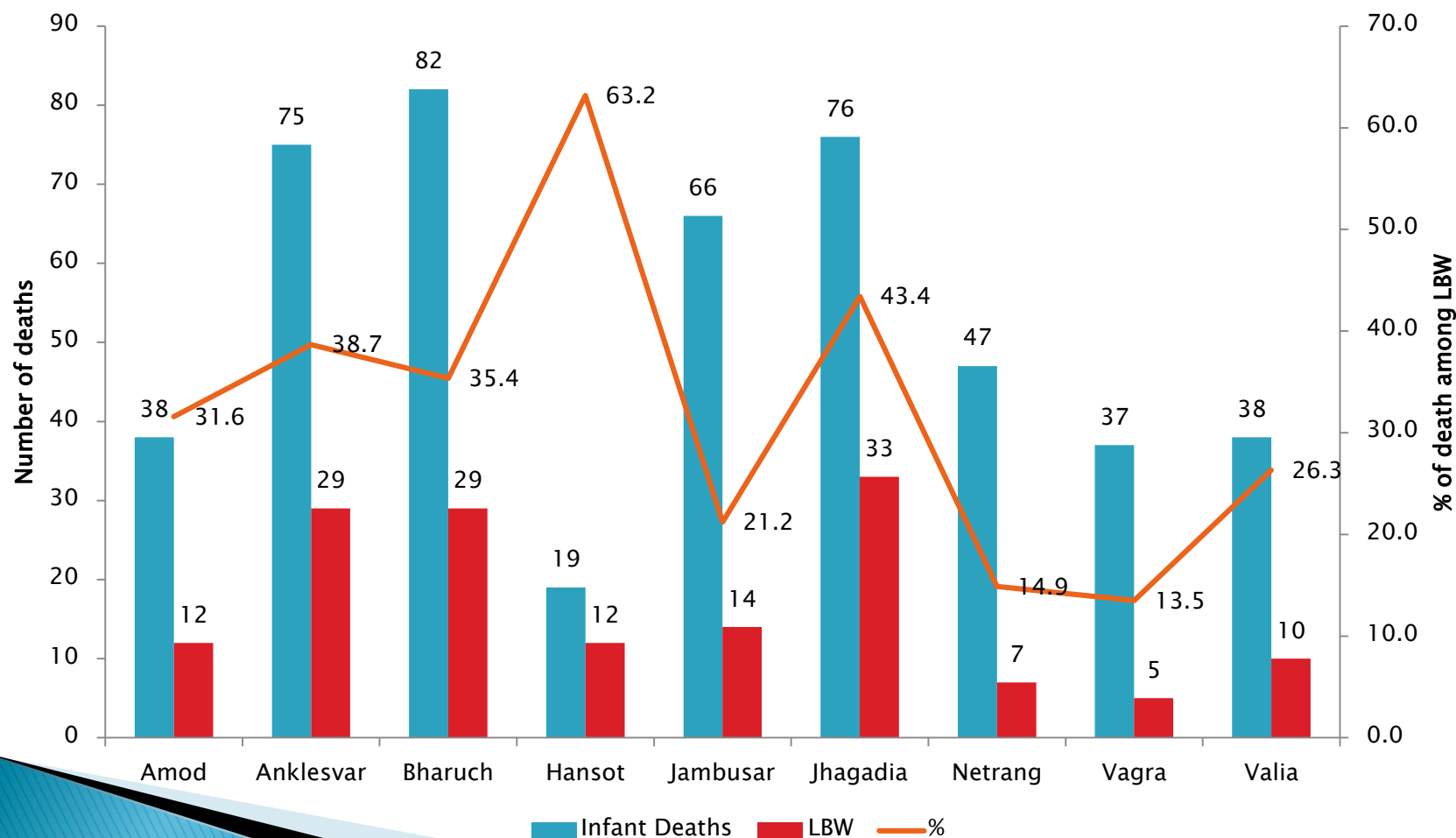
Data cleaning is the important part needs to be done before analysis in order to reduce the error in the findings. The data cleaning was done on the regular basis side by side while entering the data.

▶ **DATA ANALYSIS:**

Both SPSS software and Excel was used to analyze the result of the study.

FINDINGS

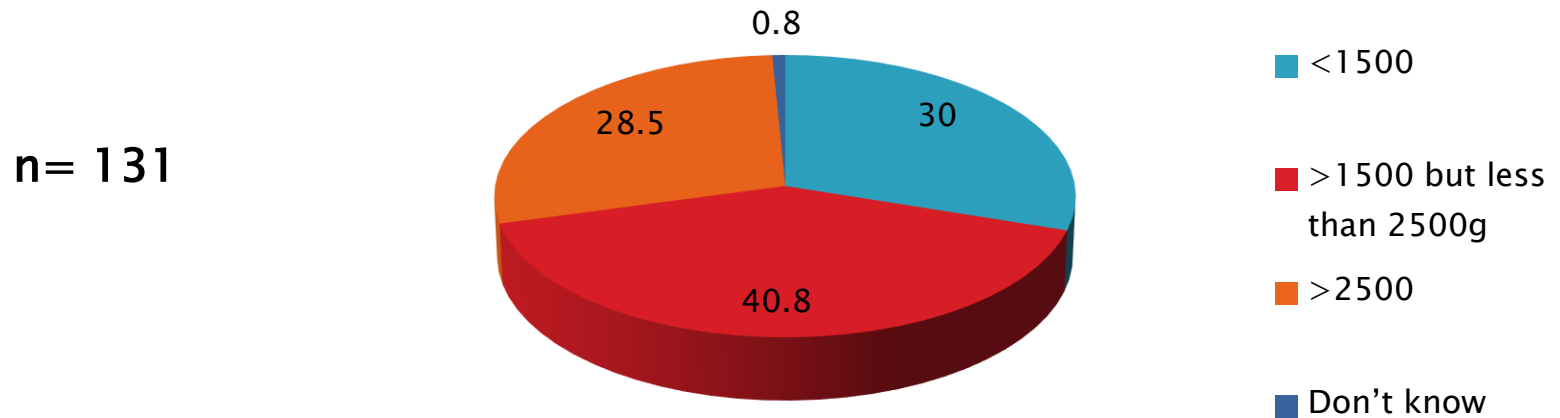
SITUATION ANALYSIS OF LBW NEONATES IN BHARUCH (n=30,000)



SOURCE: DISTRICT HEALTH SOCIETY BHARUCH 2017-18

SITUATION ANALYSIS OF PRIMARY DATA

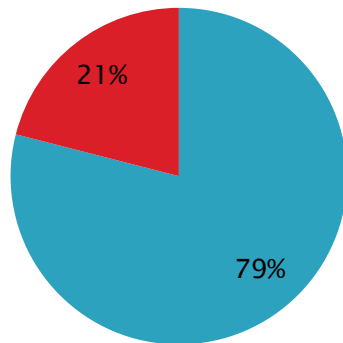
- ▶ Representing the different categories of weight of the respondent.



- ▶ The data reveals that the maximum respondent's weight that is around 41 percent falls between 1500 to 2500g. Further the data shows that there are around 30 percent of the respondent whose weight is even less than 1500g. It is also found that around 1 percent of the respondent was not aware of the weight.

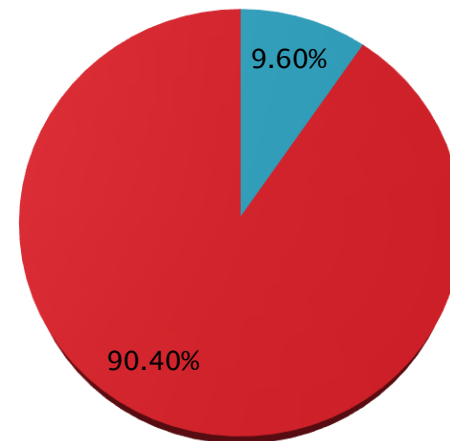
ANEMIA AMONG LBW AND NORMAL NEONATES

PERCENTAGE OF LBW NEONATES
SHOWING ANEMIA n=37



PERCENTAGE OF LBW
NEONATES SHOWING ANEMIA
n=94

■ NO
■ YES

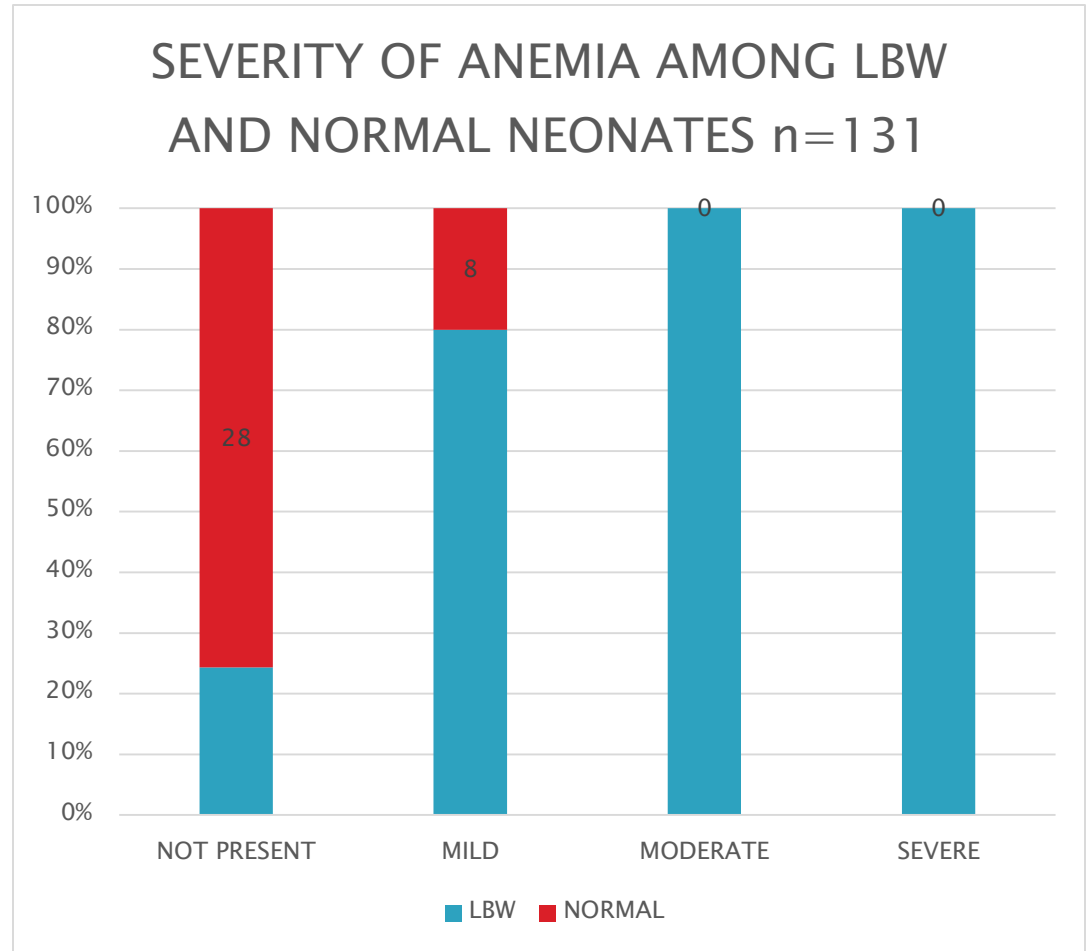


■ NO
■ YES

The data reveals that more than 90% of the LBW neonates mother suffered from Anemia so, here it needs an intervention.

TYPE OF ANEMIA PRESENT AMONG RESPONDENTS

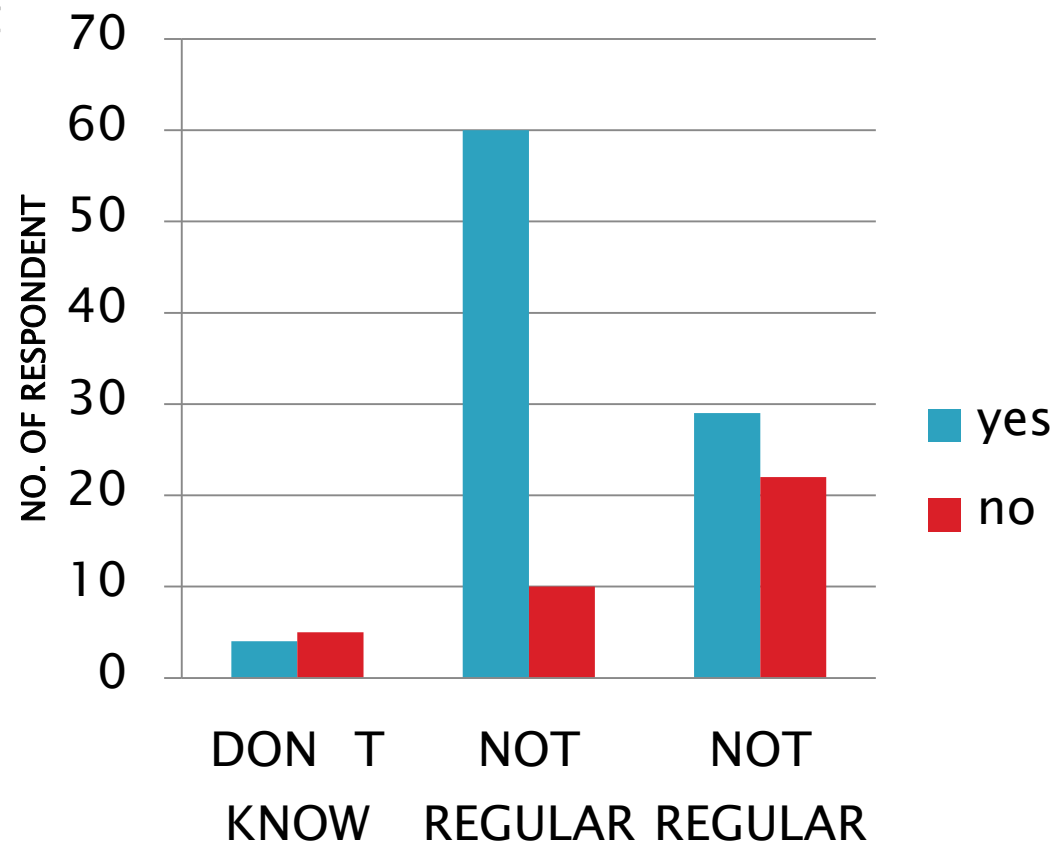
The data reveals that the mothers who delivered LBW neonates suffers from anemia, and it is found that **around 23 percent of the mothers of LBW** suffers from severe Anemia. Further the data reveals that the mother who gave birth to normal child does suffered from severe and even moderate anemia, among them more than 75 percent of mothers does not show any history of Anemia.



PRACTICE OF IRON FOLIC ACID INTAKE DURING ANC n=131

Anemia prevalence is high among the ANC mother in the District, and needs an approach to tackle the situation. Here data shows that the mother who gave birth to LBW neonate, among them more than 60 percent were not regular at intake of iron folic acid tablet. Further few mothers don't even remember the date when they last consume this tablet.

PRACTICE OF IRON FOLIC ACID INTAKE OF NEONATE MOTHERS n=131



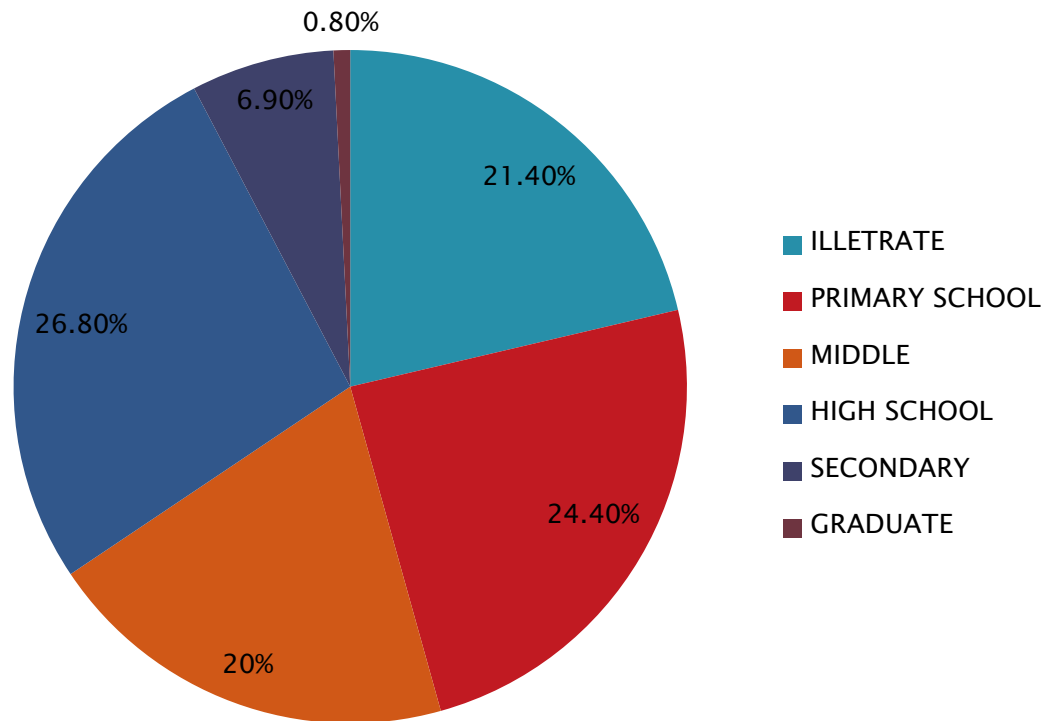
PRACTICE OF IRON FOLIC ACID INTAKE

SOURCE: PRIMARY DATA FROM BHARUCH JAN2018-APRIL

ANALYSIS OF EDUCATION STATUS OF THE RESPONDENTS

EDUCATION STATUS OF THE RESPONDENTS n=131

It was found that more than 21 percent of the respondent were Illiterate and only less than one percent of the respondents were graduate

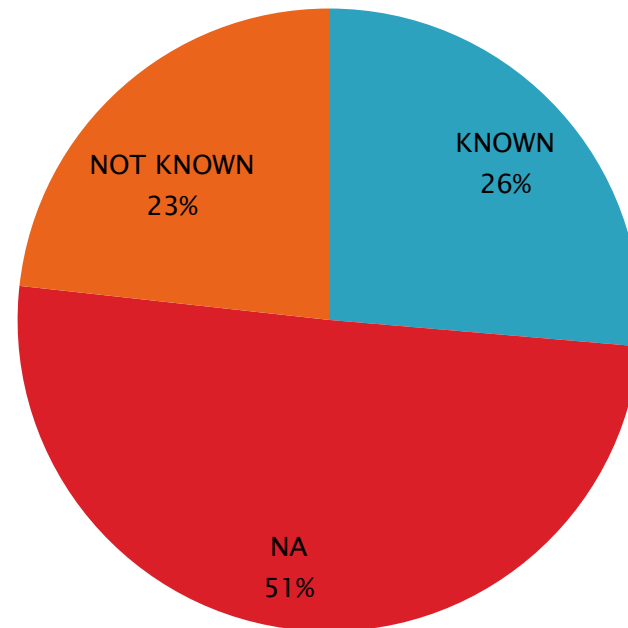


SOURCE: PRIMARY DATA FROM DISTRICT
BHARUCH JAN 2018– APRIL 2018

KNOWLEDGE REGARDING WEIGHT

KNOWLEDGE REGARDING WEIGHT OF PREVIOUS CHILD n=131

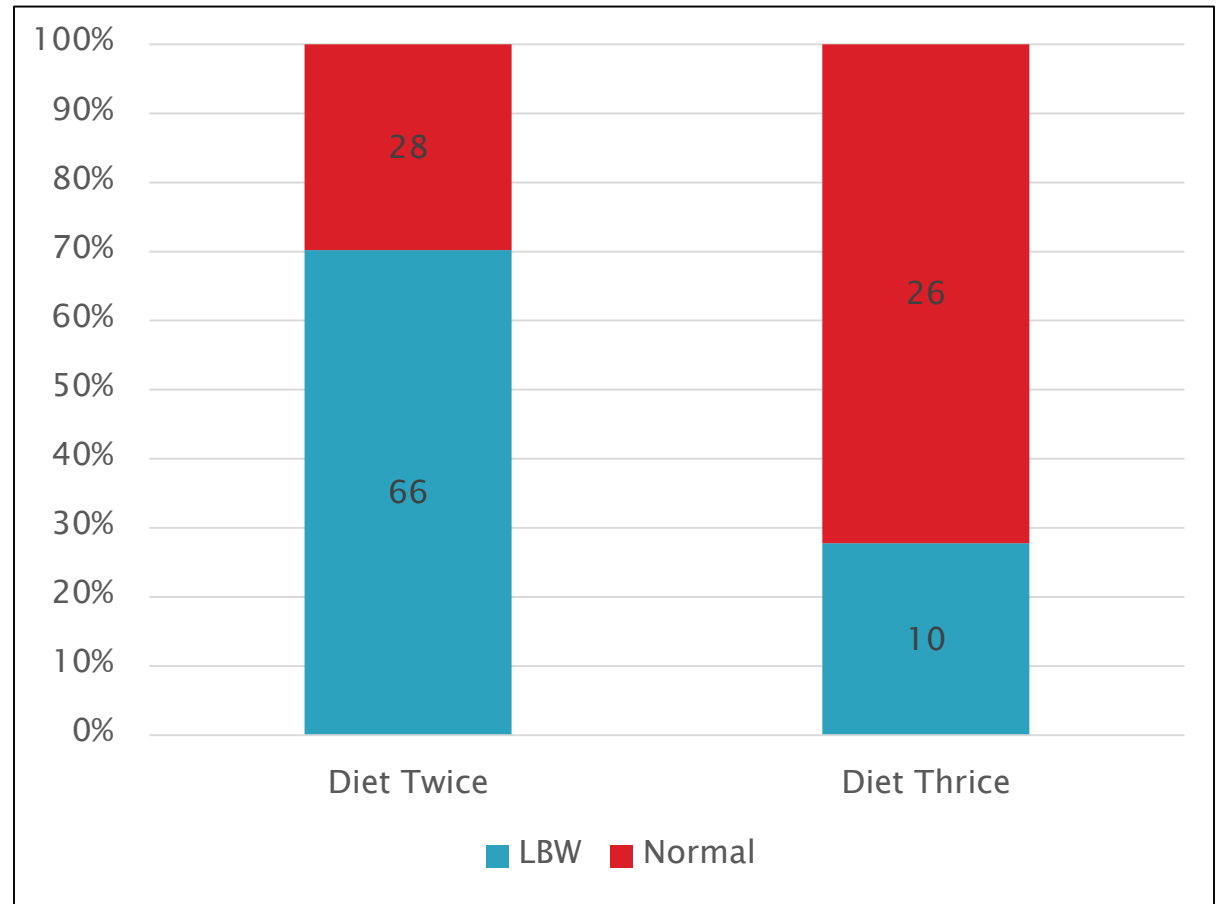
The data shows that there are around 23 percent of the respondents who were not aware about the weight of their previous child.



DIETARY PRACTICE OF RESPONDENTS n=131

DIETARY PRACTICE OF MOTHERS WHO DELIVERED NORMAL AND LBW AND NORMAL CHILD n=131

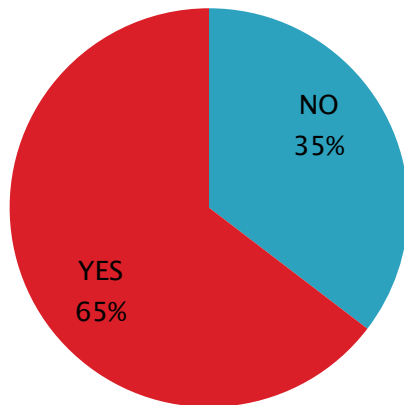
The data shows that most of the respondents that is more than 70 percent who gave birth to LBW child has poor dietary practice.



HIGH RISK FACTOR

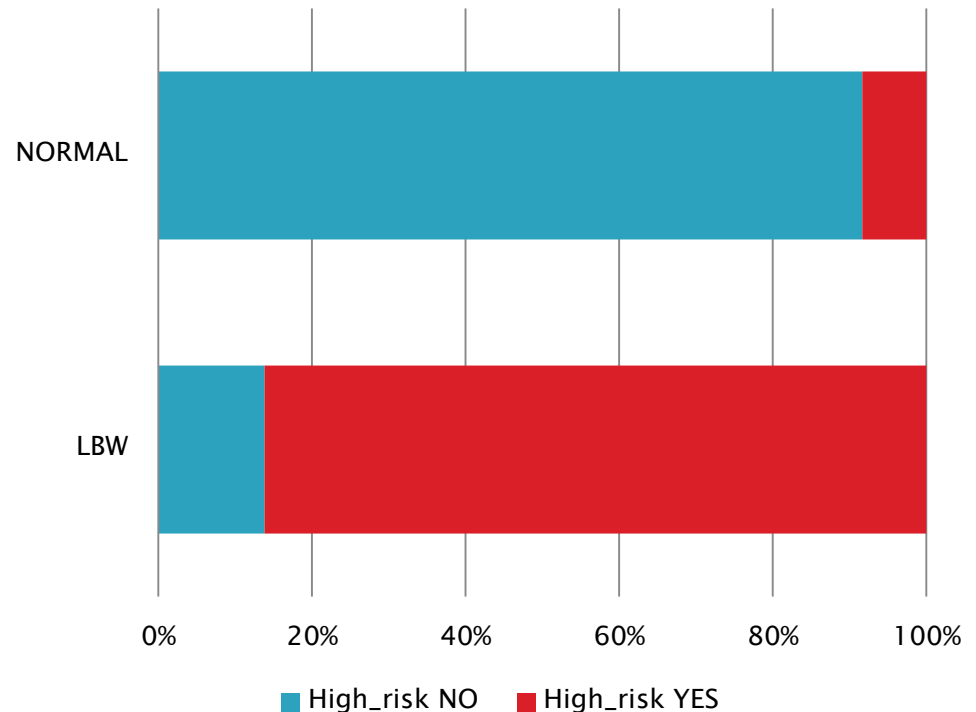
TOTAL NUMBER OF HIGH RISK CASES

n=131 frequency



The data reveals that around 64 percent of the respondent falls under the category of high risk.

NUMBER OF HIGH RISK MOTHERS WHO HAS GIVEN BIRTH TO LBW AND NORMAL WEIGHT NEONATE n=131



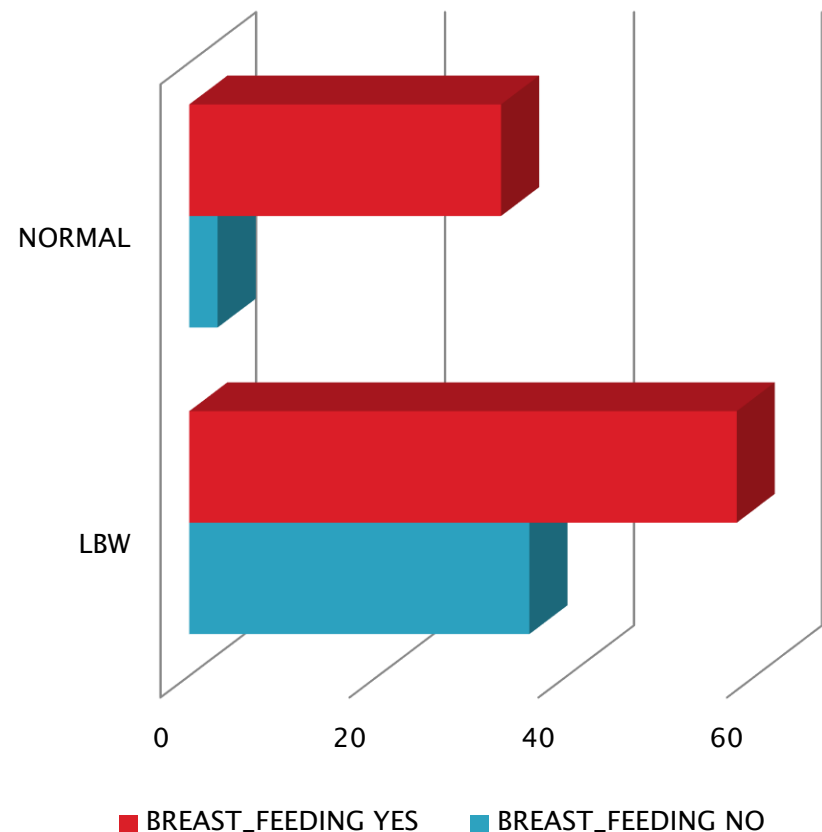
The data reveals that around 87 percent who delivered LBW child falls under high risk.

SOURCE: PRIMARY DATA FROM BHARUCH, JAN 2018– APRIL 2018

BREAST FEEDING PRACTICE WITHIN ONE HOUR OF DELIVERY

The data reveals that there is still a need to initiate the breast feeding practices within one hour of delivery in the district, as it is analysed that there are still more than 38 percent of the respondent where this practice of feeding a baby within one hour found to be lacking.

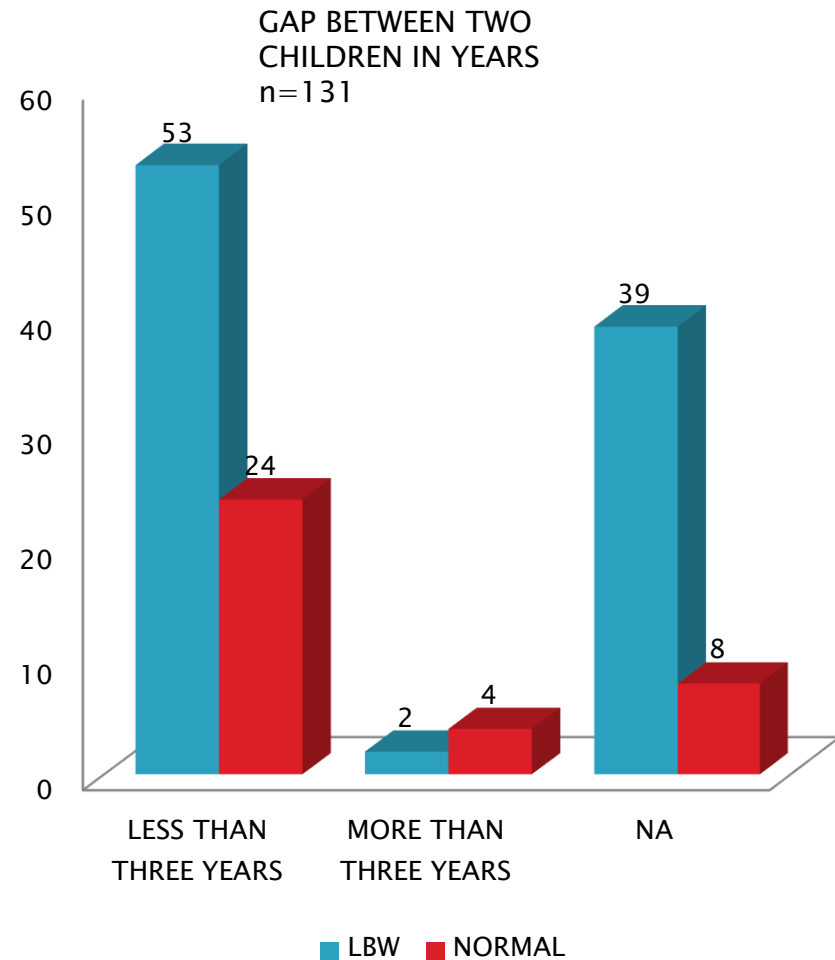
BREAST FEEDING WITHIN 1 HOUR OF BIRTH



SOURCE: PRIMARY DATA FROM BHARUCH, JAN 2018– APRIL 2018

SPACING FACTOR

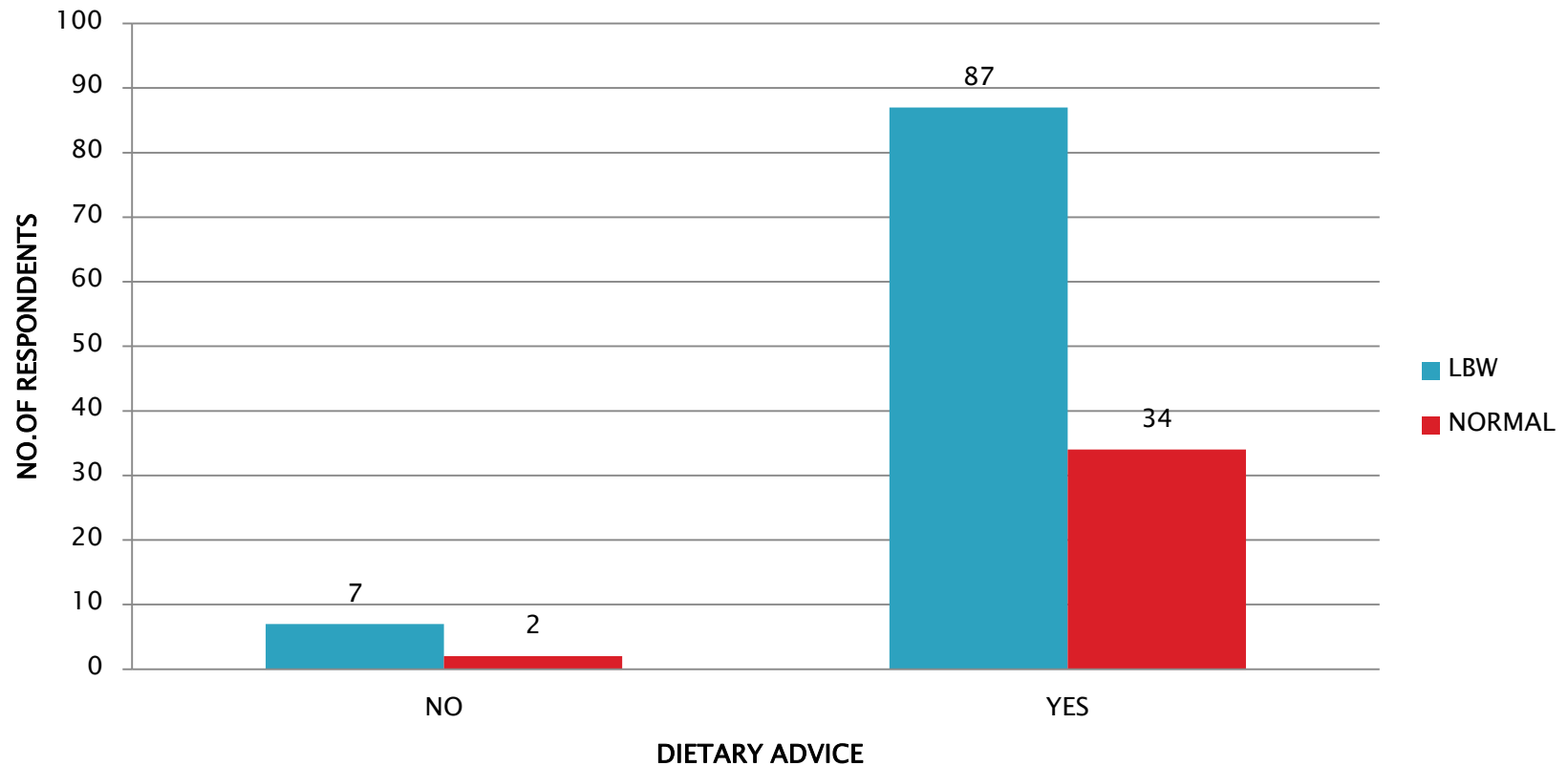
The data reveals that the PNC mother who delivered low birth baby in the last four month does not have the gap of more than three years between two children



SOURCE: PRIMARY DATA FROM BHARUCH, JAN
2018 – APRIL 2018

DIATARY ADVICE

DIETARY ADVICE DURING PREGNANCY n=131

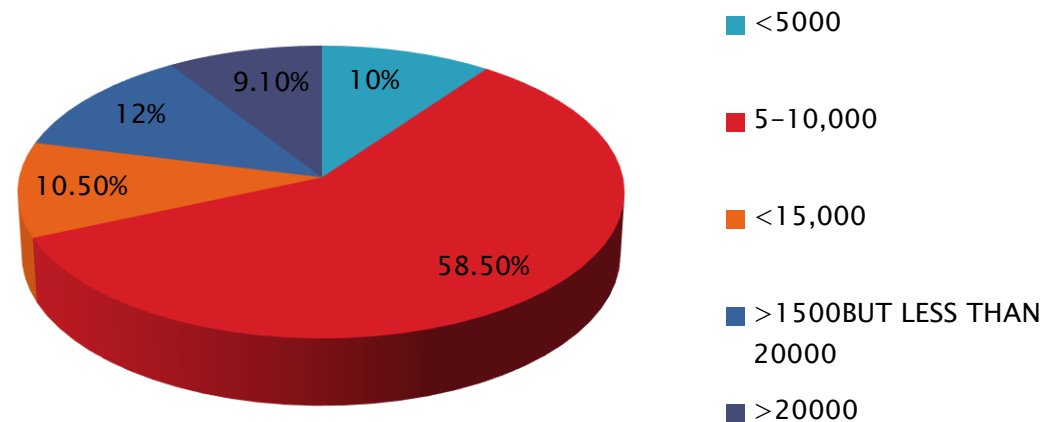


SOURCE: PRIMARY DATA FROM BHARUCH, JAN 2018- APRIL

ECONOMIC FACTOR

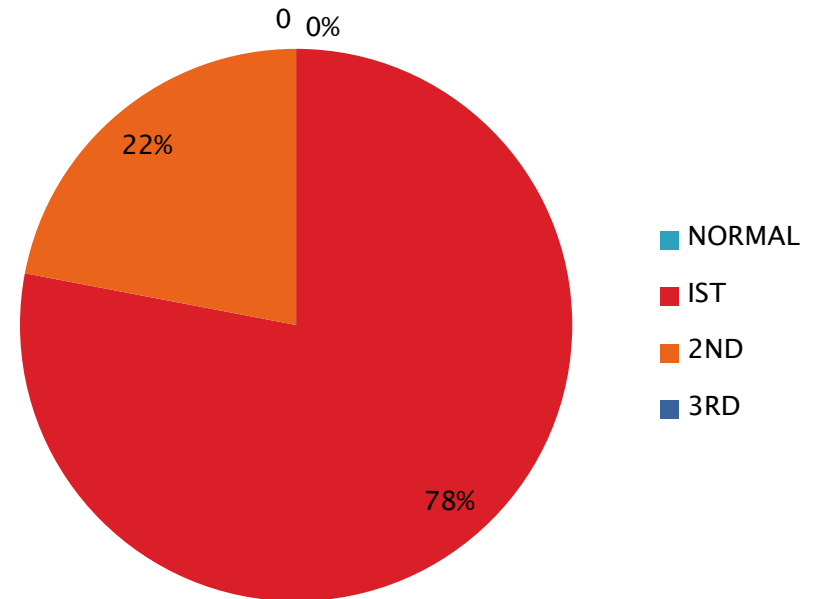
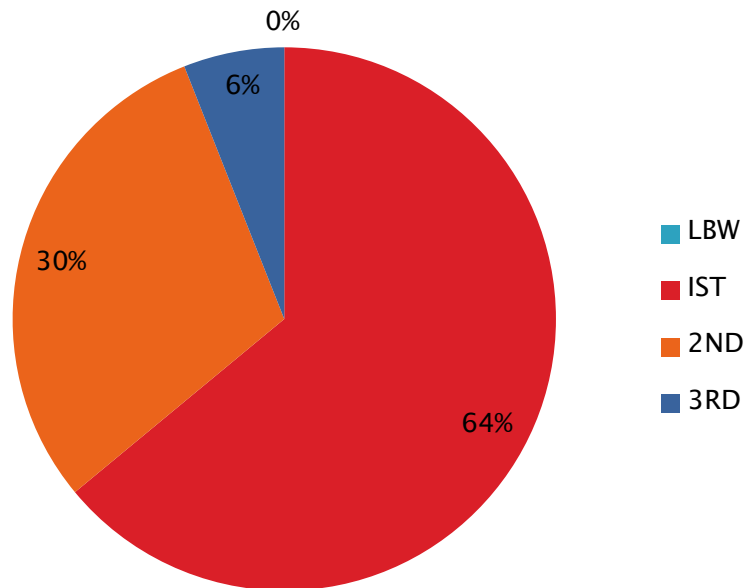
ECONOMIC FACTOR n=131

The analysis reveals that maximum of the respondents falls under low Economic status



SOURCE: PRIMARY DATA FROM BHARUCH, JAN 2018- APRIL 2018

FIRST ANC REGISTRATION



DATA REVEALS THAT 6 PERCENT OF RESPONDENTS OF LBW NEONATES DID IST ANC REGISTRATION DURING 3RD TRIMESTER

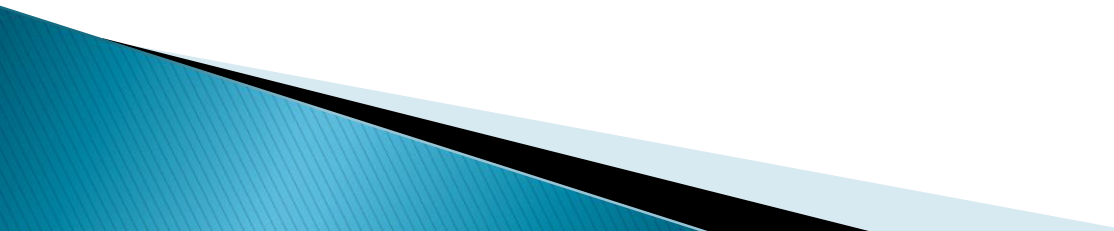
CONCLUSION

- ▶ Low birth weight is the major health determinant of neonatal health. In Bharuch district LBW is found to be **23% at present** and is one among the major **contributing factor** of **mortality** as well as **morbidity** in a District.
- ▶ The study shows that there are certain **indicators** like socioeconomic status, anemia, high risk complications, dietary factors, lack of family planning, lack of knowledge like importance of weight of previous child, Irregular intake of iron folic acid tablet, gravida, ANC registration, lack of breast feeding within one hour of delivery are showing impact on neonatal health.
- ▶ SO, in order to improve the health indicators related to LBW cases in the District **innovative action plan** is required and focused should be on identified reasons to improve LBW cases in the District.

SUGRESSIONS

- ▶ Based on data, **identification** of gap in SAM and MAM children should be done.
 - ▶ Preparation of **specific diet plan for mother** after 4 FGDs at community level.
 - ▶ Planning of **Bal Gopal project** at Netrang and Valia Block esp. for pea nut butter provision to ANC mother and SAM neonates.
 - ▶ Planning of **IEC** along with WASH for behavior change communication for Nutrition and hygiene related practices at community level.
 - ▶ Planning to **play useful videos at all CMTC** and NRC centers that can impart useful information to mothers regarding feeding practices, nutrition, diet and covering other health parameters at the time of admission.
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- ▶ Identification of high risk mothers during the early phase of pregnancy along with a birth **micro plan** to reach target mothers.
 - ▶ Weekly review meeting of Taluka Health officer.
 - ▶ Personal **visit by** Taluka and District level Health **officers** for high risk mothers which was decided in executive meeting and needs an implemented all over the district with appropriate check list.
 - ▶ Tracking of high risk mother based on e mamta.
 - ▶ Strengthened **PMSMA on 9th of every month** by involvement of private gynecologist.
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- ▶ Special focus on **Iron tablet, folic acid** compliance.
 - ▶ Injection iron sucrose injection administration with special focus to severely anemic mothers.
 - ▶ NRC coverage rate and addition of quality component.
 - ▶ Strong follow up by ASHA
 - ▶ Iron intake as per 99 DOTS.
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Thank you!



“ Unite hands for healthy mother and a healthy child”
TOGETHER WE CAN MAKE A DIFFERENCE”