

Assessment of Knowledge Attitude and Practice and Barriers
for Iron Folic Acid syrup consumption in U5 children of
Vidisha district Madhya Pradesh

By

Monali Ghosh

*Dissertation submitted for the partial fulfillment of the
MBA Hospital and Health Management*

Academic year, 2016-2018



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TO WHOMSOEVER MAY CONCERN

This is to certify that Miss Monali Ghosh student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone dissertation at Fortis Escort hospital, Jaipur from 20-February-2018 to 24-March-2018 and National Health Mission, Madhya Pradesh from 5-April-2018 to 25-May-2018.

The Candidate has successfully carried out the study designated to her during dissertation training and her approach to the study has been sincere, scientific and analytical.

The dissertation is in fulfillment of the course requirements.

I wish her all success in all his future endeavors.



Dr (Col) Ashok Kaushik

Dean, Academics and Student Affairs

IIHMR University, Jaipur



Dr. Charu Mathur

Assistant Professor

IIHMR University, Jaipur

15th May 2018

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Monali Ghosh** worked as a Trainee with us in the Dept. of Quality Assurance and FOS from 20th February 2018 to 24th March 2018.

Her performance during the period in the department was good. She comes across as a willing, sincere and intelligent person who has a strong drive and zeal for learning.

We wish her the best for all her future endeavors.



Authorized Signatory

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled “ **Assessment of Knowledge Attitude Practice and Barriers for Iron Folic Acid syrup consumption in U5 children of Vidisha district of Madhya Pradesh**” and submitted by **Miss Monali Ghosh** Enrollment No. **IIHMR-U/2016-18/0443** under the supervision of **Dr. Charu Mathur** for award of MBA in Hospital and Health of the University carried out during the period from **5th April to 25th May’ 2018** 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.


Signature

Abstract:

Titel: Assessment of Knowledge Attitude Practice and Barriers for Iron Folic Acid syrup consumption in U5 children of Vidisha district Madhya Pradesh.

Background:

Anemia is a significant public health problem, that occurs worldwide in both developing and developed countries. The World Health Organization (WHO) has estimated that globally, 1.62 billion people are anemic, with the highest prevalence of anemia (47.4%) among preschool-aged children; of these 293 million children, 89 million live in India. Iron deficiency Anemia is low blood level of iron. It is usually related to increased iron requirements during rapid growth periods and a low intake of dietary iron. Alleviating childhood iron-deficiency anemia is a public-health priority, as anemia is associated with impaired cognitive and psychomotor development. With the aim of reducing the burden of the prevalence of anemia, the Government of India had introduced several health programs and further on came up with modification according to the need of the outcome. Ministry of health and family welfare, Government of India, in 2013 launched **National Iron Plus Initiative (NIPI)** as a comprehensive strategy to combat the public health challenge of iron deficiency anemia prevalent across the life cycle, as iron deficiency contributes more than 55% of anemia in our country. Therefore, according to the new policy of NIPI the recommendations are as follows:

Guidelines for iron supplementation to children six to sixty months of age:

- 1. Bi. weekly 1 ml IFA syrup containing 20mg of elemental iron and 100 mcg of folic acid**
- 2. The IFA bottles should have an auto dispenser so only 1ml of syrup will be dispensed at a time.**

Rational of the study:

According to NFHS 4, in Madhya Pradesh anemia prevalence rate among children under 5 years is **68.9%** (Rural-66.3%, Urban -69.9%), where in Vidisha district of Madhya Pradesh it is concernably higher, **69.8%**. According to a study conducted by National Institute of Nutrition, 2011, In Vidisha District of Madhya Pradesh, the coverage for iron folic acid supplement was 36% in under 5 children. With this background, the present study was undertaken to assess the knowledge, attitude and practice and barriers of the beneficiaries regarding IFA syrup consumption among children under the age group of 5 years in Vidisha district, Madhya Pradesh.

Objective of the Study:

- 1. To assess Knowledge, Attitude and Practice among mothers regarding IFA syrup consumption in under 5 children, at Vidisha district, Madhya Pradesh.**
- 2. Find out the barriers in IFA syrup consumption among U5 children.**

Methodology of the study:

Study design: The study will be Cross sectional, descriptive study.

Study Location: Village- Kribaya, Negma Peparia of Tyonda- Basoda block, and Village- Pasora Haveli, Berkhedijetu, Dharukhedi and Hasua of Pipalkheda- Vidisha block at Vidisha District, Madhya Pradesh.

Sampling technique: Convenience cluster, purposive sampling

Sample size: 60 mothers having children under 6-59 months, of Basoda and Vidisha block each.

Inclusion Criteria: Mothers who were willing and available during the study period

Exclusion Criteria: Mothers having child above 5 years were not included.

Data collection instrument: Structured Interview Questionnaire

Data collection procedure: Pencil and paper assisted Interview.

For data collection : according to convenience sampling villages were visited. A rapid situational analysis tool was prepared for mothers, at their home setting in these villages the questions were asked and the responses were recorded. The questions were close ended as to explore whether the target population falls into that range of responses, with an Intent to find Probable reasons.

Data Analysis Procedure:

Data is interpreted through Ms- excel. The data collected is interpreted and analyzed with the help of diagrams and Graphs.

Results:

In this rural community of Madhya Pradesh India, the compliances of iron folic acid syrup are still far behind to reach the National Goal, the service component are not quite strong by the front line workers in terms of enhancing awareness of the community regarding anemia and its preventive measures. Inaccessibility of the house holds and mainly the irregular supply contributes as barriers on a large note. In Vidisha Block, 47% of the under 5 children consume IFA syrup on regular basis, . In Basoda the rates is 35%. 74% and 63% of the respondent indicates irregular supply and 46% and 41% of the respondent indicates non accessibility to the anganwadi center, as the barrier to regular IFA syrup intake in Basoda and Vidisha block respectively.

Conclusion:

Anemia is one of the significant issue , that needs to be immediately attended to. Strategies and documents endorse this need. Government policies should first ensure the regular availability of IFA syrup in all the anganwadicenters. It is evident that consumption of IFA tablets will surely be enhanced if proper social mobilization is undertaken. This simple enhancement will surely change the present scenario in terms of iron and folic acid deficiency in under 5 children towards the better in near future.

Acknowledgement

“Vital to every operation is cooperation”–

A wonderful quotation put forth by Mr. Frank Tyger.

The dissertation opportunity I had with National Health Mission Madhya Pradesh was an enriching experience, it was a great chance for learning and professional development. It helped me develop an ability to understand healthcare issues from various perspectives.

Bearing in mind the previous, I would like to take this opportunity to express my deepest gratitude and special thanks to my mentor, Dr. Charu Mathur, Assistant Professor, IIHMR University, Jaipur, for guiding and keeping me on the correct path throughout the dissertation period.

It is my radiant sentiment to place on record my best regards, deepest sense of gratitude and indebtedness to Shri S.Viswanathan , Mission Director, NHM Madhya Pradesh, for his immense support and faith and for allowing me to carry out the study with ease at his esteemed organisation during the dissertation.

I would like to gratefully acknowledge Dr. Pragya Tiwari, Deputy Director Nutrition, whose guidance, deep sharing, and cooperation has moved me many levels beyond our own thinking.

Special thanks to the State as well as District Program Managing Unit of Vidisha District for supporting us through the whole project with traveling. Contribution of DHO of the district was magnificent.

I perceive the opportunity as a big milestone in my professional development. I will strive to use the gained skills and acknowledgement on the best possible way, and will continue to work on their improvement, to attain the desired career objectives.

Sincerely,

Monali Ghosh

Table of Content:

Abbreviations.....	4
Introduction.....	5-7
Magnitude of Problem.....	7-8
Rational.....	8
Literature review.....	9-10
Problem statement.....	10
Research Objectives , and Methodology.....	11
Design tools.....	11
Data Collection.....	11
Results.....	12-24
Discussion.....	25
Recommendation.....	26
Conclusion.....	27
Reference.....	28

ABBREVIATION:

ANM -Auxiliary Nurse Midwife	NRHM -National Rural Health Mission
ASHA -Accredited Social Health Activist	NUHM - National Urban Health Mission
AWW -Aanganwadi Worker	PIP -Program Implementation Plan
AWC - Aanganwadi Center	SMO -Sector Medical Officer
IFA -Iron Folic Acid	SPM -State Program Manager
BCC -Behaviour Change Communication	SPMU - State Program Management Unit
CHN -Child Health Nutrition	U5 – Under 5
RBSK - Rasthriya Bal Swasthya Karyakram	KAP - Knowledge Attitude Practice
CMHO -Chief Medical Health Officer	NIPI - National Iron Plus Programme
DD -Deputy Director	NITI -National Institute for Transforming India
DHO -District Health Officer	HMIS -Health Management Information System
DPM - District Program Manager	IEC -Information Education Communication
DPMU - District Program Management Unit	
HPD -High Priority District	

Introduction:

Anemia is a significant public health problem, that occurs worldwide in both developing and developed countries. Iron deficiency is believed to be the most important cause of anemia, among children in India and is attributable to poor nutritional iron intake and low iron bioavailability. Other factors, including folate and vitamin B₁₂ and A deficiencies, hookworm infestation, malaria infection and hemoglobinopathies, are also associated with anemia among children.

The World Health Organization (WHO) has estimated that globally, 1.62 billion people are anemic, with the highest prevalence of anemia (47.4%) among preschool-aged children; of these 293 million children, 89 million live in India.....6

The commonest causes of anemia in developing countries, particularly among the most vulnerable groups (pregnant women and preschool age children), are nutritional disorders and infections. Most anemia cases develop progressively and gradually are due to iron deficiency. Bad feeding habits, especially during the weaning period, in early childhood, exacerbate the problem. Anemia mostly develops as breast milk is replaced by foods that may be poor in iron and other nutrients, including folic acid and vitamin B₁₂. Low oxygenation of brain tissues, a consequence of anemia, may lead to impaired cognitive growth, function and psychomotor development, especially in children. A greater susceptibility to anemia is in among infants, under 5-year-old children and pregnant women, because of their higher iron requirements due to expansion of red blood cells and rapid body growth.

According to World Health Organization criteria, for anemia cut off as measured by the hemoglobin (values in g/dl.) for- Children 6-59 months -is

Types	Non anemic	Anemic	Mild anemia	Moderate anemia	Severe anemia
Hemoglobin level (values in g/dl.)	11.0 or more	< 11.0	10- 10.99	7- 9.99	< 7

Anemia is associated with biological, socioeconomic, nutritional and environmental factors. India, in the past few decades, has witnessed rapid progress in terms of agricultural production and industrialization. Yet malnutrition, especially undernutrition, diarrhea, severe acute anemia and childhood pneumonia continues to be a major problem of public health significance in this country.

With the aim of reducing burden of the prevalence of anemia Government of India had introduce several health programs and further on came up with modification according to the need of the outcome.

In India, the **Nutritional Anemia Prophylaxis program is in existence since 1970**, as anemia has continued to be highly prevalent among children, the program has been re-designated as the **National Nutritional Anemia Control Program in 1991**. This program aims at, decreasing the incidence and prevalence of anemia among the vulnerable sections of the population, namely children in the one-to-five year age group, pregnant and lactating women and intrauterine device (IUD) users. For children between 12 and 59 months one tablet of 20 mg elemental iron and to treat children found clinically anemic 100 mg of folate for 100 days in a year was prescribed by the program10

Several studies suggest that iron and folic acid (IFA) tablets given to young children under the age of three years was not well-accepted and thus government made efforts to recommend that IFA tablets to be replaced by IFA syrup for the children under age group 6 – 59 months. This recommendation has been endorsed in the Government of India's policy in the year 2007, and it further endorses the requirement of iron supplementation to children below one year of age, as well. Ministry of health and family welfare, Government of India in 2013 launched **National Iron Plus Initiative (NIPI)** as a comprehensive strategy to combat the public health challenge of iron deficiency anemia prevalent, across the life cycle, as iron deficiency contributes more than 55% of anemia in our country6

As a holistic approach to prevent and control anemia in different age group, Madhya Pradesh has launched NIPI program in June, 2014.....11

Therefore, according to the new policy of NIPI the recommendations are as follows:

Guidelines for iron supplementation to children six to sixty months of age:

- 1. Bi. weekly 1 ml IFA syrup containing 20mg of elemental iron and 100 mcg of folic acid**
- 2. The IFA bottles should have an auto dispenser so only 1ml of syrup will be dispensed at a time.**
- 3. Annual deworming for anti-helminthes control (albendazole tablet 200mg for children aged 12-24 months and albendazole tablet 400mg for Children aged 36-59 months)**

For children's anemia control there is very less monitoring system in place, which is leaving the implementation of the programs fairly weak. There are a number of components like, vitamin A coverage, vaccine coverage, that are being monitored, but not IFA supplementation.

Operational strategies for IFA syrup supplementation in Madhya Pradesh:

Areas	Status
Supply	State procure 50 ml IFA syrup bottles .
Distribution strategy	Twice a week distribution to 6-59 months by ASHA and AWW at AWC
Incentives	Rs100/month for provision of 6-8 doses/per child
Reporting	Reporting formats are printed and ASHA collects reports from AWCs and submit to ASHA Sahyogini who further submitted to ANM.

Apart from that NITI Aayog, Lalima, Dastakabhiyan has also introduced to come up with innovative preventive strategies for improving the health indicators including reducing the prevalence of anemia.

Magnitude of problem :

Iron deficiency Anemia is low blood level of iron. It is usually related to increased iron requirements during rapid growth periods and a low intake of dietary iron. Alleviating childhood iron-deficiency anemia is a public-health priority, as anemia is associated with impaired cognitive and psychomotor development. The effects of iron deficiency, observed in the first six months of life may lead to permanent brain damage. An afflicted child is likely to remain vulnerable to infection and have lower immunity toward infection throughout childhood. Also, the child's overall appetite is reduced and this vicious cycle perpetuates a series of events .

The three main reasons for Iron deficiency anemia in children are:

- In the second year of life, poor bioavailability of iron consumed, related to the low consumption of absorption enhancers and a high consumption of absorption inhibitors
- As compared to the need, insufficient intake of iron.
- Increased requirement during the rapid growth stage of, infancy and early childhood, between six and fifty nine months.

According to the estimation done by The World Health Organization (WHO), globally, 1.62 billion people are anemic. The prevalence of anemia is highest among preschool-aged children (47.4%); of these 293 million worldwide children, 89 million live in India. Highest number of anemic persons are in South East Asia, 36% men, 60% women, and 66% of the children in this region are anemic. This contributes to 12,500,000 Disability Adjusted Life-Years (DALYs) and 324,000 deaths in this region, which is highest in the world. The majority of India's population (72.2%) is rural and anemia was especially prevalent among rural children. It has been a big problem in India and the National Family Health Survey (NFHS) 4 data showed the prevalence of anemia among children less than five years of age is **58.5%**. Where in Madhya Pradesh its **68.9%** (Rural-66.3%, Urban -69.9%), in Vidisha district of Madhya Pradesh its concernably higher, **69.8%**. When we look at the data for anemia prevalence among children under five years of age, of National Family Health Survey 3 data, the prevalence of anemia among children less than five years of age is **69.4%**. Where in Madhya Pradesh its **74%**, it is noteworthy that the existing national anemia-control programs has slightly improved the prevalence rate of severe anemia.

Rational:

NITI aayog has come up with a mechanism under which 115 under developed districts of the country termed as aspiration districts are enrolled. Eight districts of Madhya Pradesh including Vidisha have been listed among the backward districts in the country by NITI aayog. Being a high priority district of Madhya Pradesh, Vidisha has lagged in education and health indicators.

As per 2011 India census, Vidisha has a population of 14,58,751. Male and female constitutes 52.75% and 47.24% consecutively of the total population. Among total population, 2,35,391 is the number of children under age group 0-6 years. In Vidisha district Average literacy rate- 70.53%, where among female its 60.85% and male literacy rate is 79.14%. As per National Family Health Survey, 4 (NFHS, 4) Children under 5 years who are stunted 41.1%. Children under 5 years who are wasted 21.4%. Children under 5 years who are severely wasted 6.3%. Children under 5 years who are underweight 40.4%. Average per capita monthly income Rs. 901.

According to NFHS 4, in Madhya Pradesh anemia prevalence rate among children under 5 years is **68.9%** (Rural-66.3%, Urban -69.9%), where in Vidisha district of Madhya Pradesh its concernably higher, **69.8%**. According to a study conducted by National Institute of Nutrition, 2011, In Vidisha District of Madhya Pradesh, the coverage for iron folic acid supplement was 36% in under 5 children....5,12

With this background, the present study was undertaken to assess the awareness and effectiveness of IFA syrup consumption among children under the age group of 5 years in Vidisha district, Madhya Pradesh.



Literature review:

According to a study conducted by National Institute of Nutrition, 2011, In Vidisha District of Madhya Pradesh, the coverage for iron folic acid supplement was very low .36% children of 12-59 months reportedly received IFA tablets during the preceding year, either from Anganwadi center (28.4%) or Auxiliary Nurse Midwife (4.8%).While only about 18% received ≥ 90 IFA tablets, indicating poor coverage. This low compliance (only 5% consumed ≥ 90 tablets) is the consequence of weak education component12

According to a cross-sectional study conducted of children aged 12 to 23 months in 2 rural districts of Karnataka, India , Anemia (hemoglobin level < 11.0 g/dL) was detected in 75.3% of the 401 children sampled. Anemia was associated with iron deficiency (low ferritin level), maternal anemia, and food insecurity. Children's ferritin levels were directly associated with their iron intake and CRP levels and with maternal hemoglobin level and inversely associated with continued breastfeeding and the child's energy intake. A multivariate model for the child's hemoglobin level revealed associations with log(ferritin level) (coefficient: 1.20; $P < .001$), folate level (0.05; $P < .01$), maternal hemoglobin level (0.16; $P < .001$), family wealth index (0.02; $P < .05$), male gender (-0.38 ; $P < .05$), child's age (0.05 per month; $P < .005$), hemoglobinopathy (-1.51 ; $P < .001$), CRP level (-0.18 ; $P < .001$), and. Wealth index and food insecurity could be interchanged in this model3

According to a study is a cross-sectional performed on 60 children of rural area. Venous blood samples were taken from the studied population for estimating hematological parameters as well as iron and ferritin levels. Approximately 63.33% of children had blood lead levels ≥ 10 $\mu\text{g/dl}$. At the blood lead level range of 10-20 $\mu\text{g/dl}$, a significant association was found for mild and severe anemia....7

According to a cross sectional study done on 137 children of age 1–2 years in urban slums of Meerut. Prevalence of anemia in the study group was 59.9%. The socio-economic status, mother's educational status, sibling order, birth weight, and type of food did not show any significant relationship with the prevalence of anemia in these children. Weaning time, early iron supplementation, nutritional status had a positive impact on it. Exclusive breast feeding upto 6 months followed by weaning, early iron supplementation and adequate nutritional status have a definite role in prevention of anemia in children. A highly significant impact, of early iron supplementation was also found on prevalence of anemia ($p < 0.001$) being 68.4% among the children who were on either occasional or irregular iron supplementation or no iron supplementation and 23.8% among the children who were on regular iron supplementation from age of 6 months, was depicted by history8

As per NFHS 4 (2015-16) under-five mortality rate in children is 65 per 1000 live births, a major proportion of which is attributable to underlying malnutrition. It is also noteworthy that 68.9% children are anemic while 9.2% children are SAM in the State Madhya Pradesh. With the reference of the above data, the State had launched an innovative strategy for extending Health and nutrition Outreach services at community, named Dastak Abhiyaan, which targets the vulnerable children through house to house active screening by frontline workers involvement and with the support of integrated child development service (ICDS) workforce. The key interventions of the program include screening of childhood anemia and referral of severe anemic cases. In the first phase it was implemented in 168 blocks of the state in 2017 (June-July). The program entails door to door visit of frontline workers, thus named Dastak. The campaign has to be carried out bi-annually. It works by gap analysis, ensuring required logistics, capacity building with the help of Dastak real time monitoring tool, to keep the track of the children and was merged with SAMAGRA ID of the child and family which focuses on preventive and promotive aspects of health, prompt management of critical children and thus reducing the mortality risk. To monitor the activities of Dastak Abhiyaan, daily concurrent monitoring has also been ensured by leveraging representatives of Donor Partners, officials of the State and district has led to immediate redressal of gaps. Punitive actions against errant ANMs and AWWs have been instituted by respective departments. Dastak Abhiyaan is based on the concept of active case finding leveraging existing manpower of Health & ICDS without incurring any additional cost, thus extending the benefits of service delivery and outreach services upto the door step of the community9

Problem statement: Despite of introducing several programs to increase IFA syrup consumption rate among children of 6- 59 months age grouped with the aim to reduce the prevalence of anemia in Madhya Pradesh, the rate of anemia remains significantly high, specially in Vidisha district its concern ably higher than the overall anemia rate in Madhya Pradesh. This study is done to assess the effectiveness of IFA syrup distribution and awareness regarding anemia in U5 children among mothers in Vidisha district of Madhya Pradesh.

Objective of the Study:

- 1.To assess Knowledge,attitude and practice among mothers regarding IFA syrup consumption in U5 children,at Vidisha district,Madya Pradesh.
2. Find out the barriers in IFA syrup consumption among U5 children.

Methodology of the study:

Study design:The study will be Cross sectional, descriptive study.

Study Location:Village- Kribaya,NegmaPeparia of Tyonda- Basodablock,and Village-PasoraHaveli,Berkhedijetu,Dharukhedi and Hasua of Pipalkheda- Vidisha block at Vidisha District, Madhya Pradesh.

Sampling technique:Convenience cluster, purposive sampling

Sample size: 60mothers having children under 6-59 months, of Basoda and Vidisha block each.

Inclusion Criteria: Mothers who were willing and available during the study period

Exclusion Criteria: Mothers having child above 5 years were not included.

Data collection instrument:Semi Structured Interview Questionnaire

Data collection procedure: Pencil and paper assisted Interview.

For data collection : according to convenience sampling villages were visited.A rapid situational analysis tool was prepared for mothers, at their home setting in these villages the questions were asked and the responses were recorded.The questions were close ended as to explore whether the target population falls into that range of responses,with an Intent to find Probable reasons.

Data Analysis Procedure:

Data is analyzed through Ms- excel. The data collected is interpreted with the help of diagrams and Graphs.

Ethical considerations:

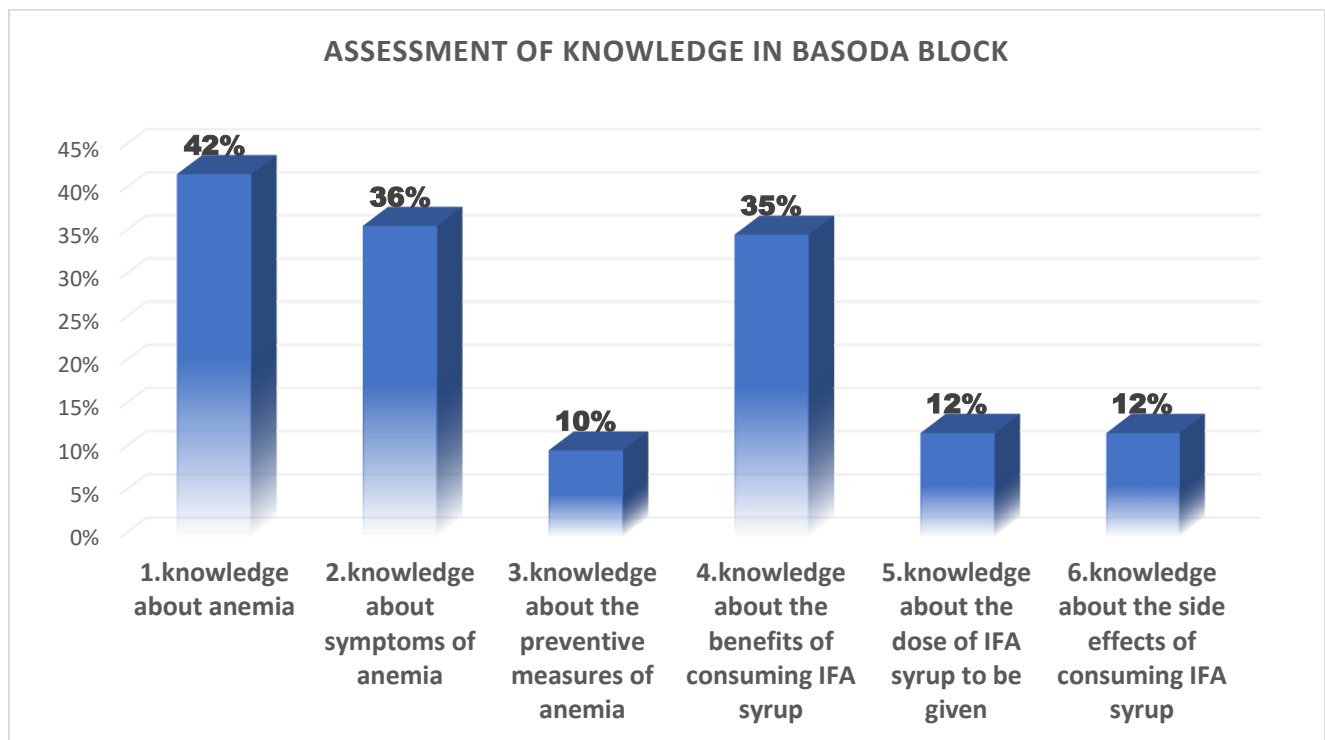
Informed consent as taken before the start of the interview. If anyone disagreed to become the part of the data collection process, they were not forced by any means. Purpose and objective of the research was explained before to the respondents.

Results:

Based on the questions asked regarding awareness about anemia ,availability of IFA syrup and barriers in consumption, some Indicators are highlighted.

Chart 1:

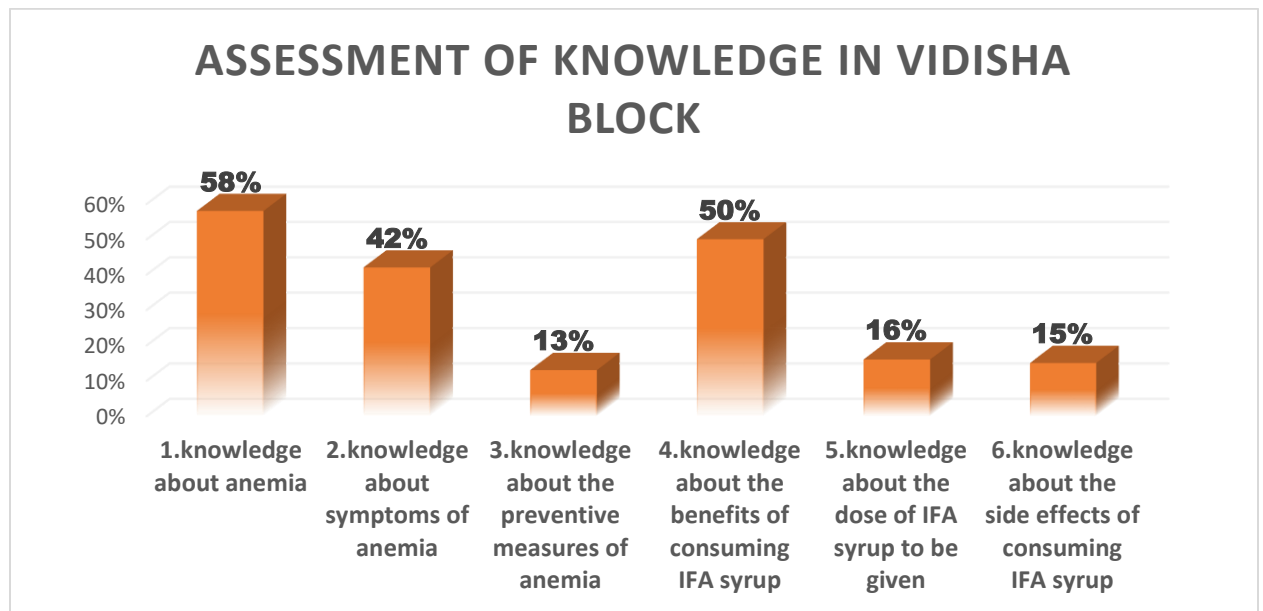
This chart shows the percentage of the study population having the awareness regarding Anemia and importance of IFA syrup consumption among under 5 children of Basoda block of Vidisha district Madhya Pradesh following the stated indicators. (n=60)



As the chart depicts, In Basoda Block 42% of the respondent have the knowledge about anemia, 36% of the respondents have the knowledge about at least 2 symptoms of anemia, 10% of the respondent have the knowledge about atleast 2 preventive measures of anemia, 35% of the respondent have the knowledge about the benefits of consuming IFA supplements, 12% of the respondents have the knowledge about the dose of IFA syrup supplementation and 12% of the respondent have the knowledge about the side effects of consuming IFA supplements.

Chart 2:

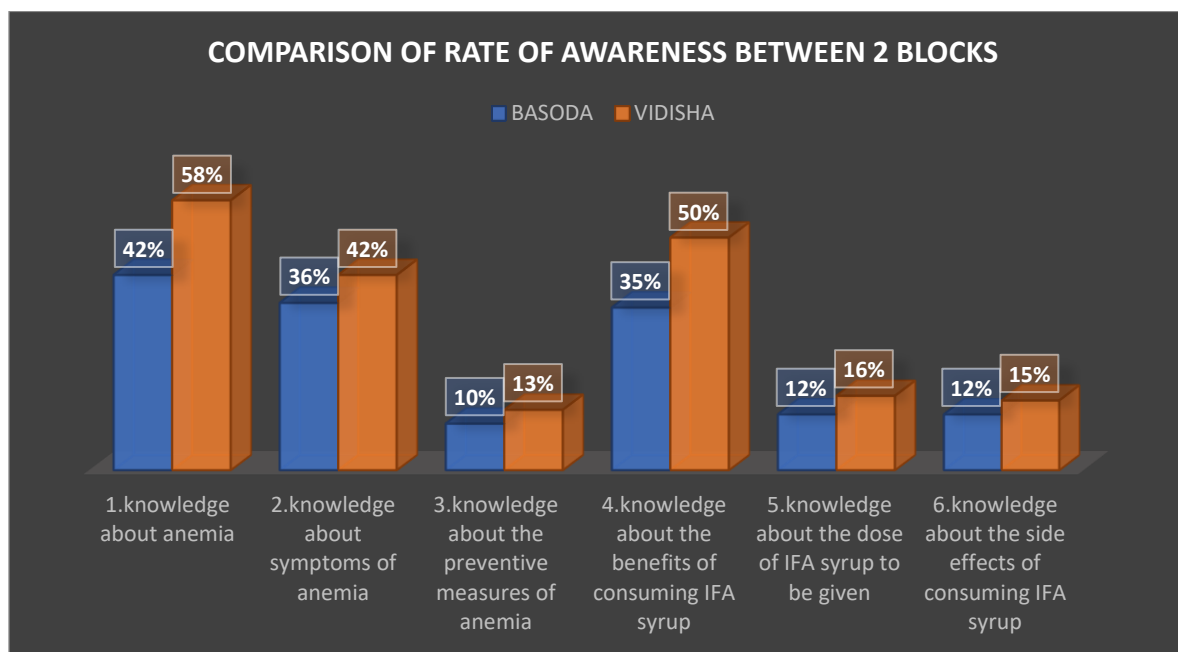
This chart shows the percentage of the study population having the awareness regarding Anemia and importance of IFA syrup consumption among under 5 children of Vidisha block of Vidisha district Madhya Pradesh following the stated indicators. (n=60)



As the chart depicts, In Vidisha Block 58% of the respondent have the knowledge about anemia, 42% of the respondents have the knowledge about at least 2 symptoms of anemia, 13% of the respondent have the knowledge about atleast 2 preventive measures of anemia, 50% of the respondent have the knowledge about the benefits of consuming IFA supplements, 16% of the respondents have the knowledge about the dose of IFA syrup supplementation and 15% of the respondent have the knowledge about the side effects of consuming IFA supplements.

Chart 3:

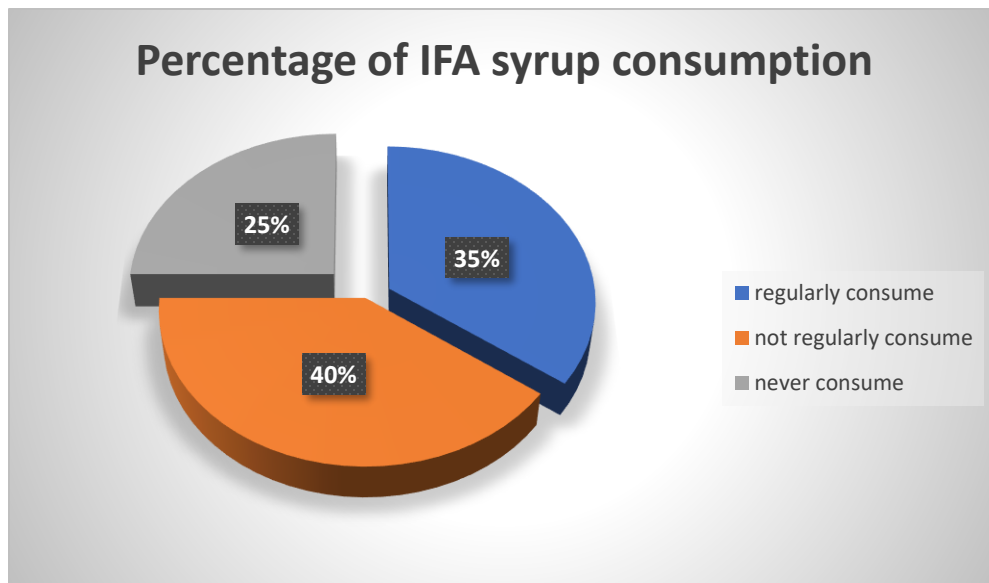
This chart shows the comparison of the percentage rate of awareness regarding Anemia and importance of IFA syrup consumption among under 5 children, between Basoda and Vidisha Block of Vidisha District, Madhya Pradesh.



This Graph depicts that on an average the awareness level of anemia is comparatively higher in Vidisha Block than Basoda Block.

Chart 4:

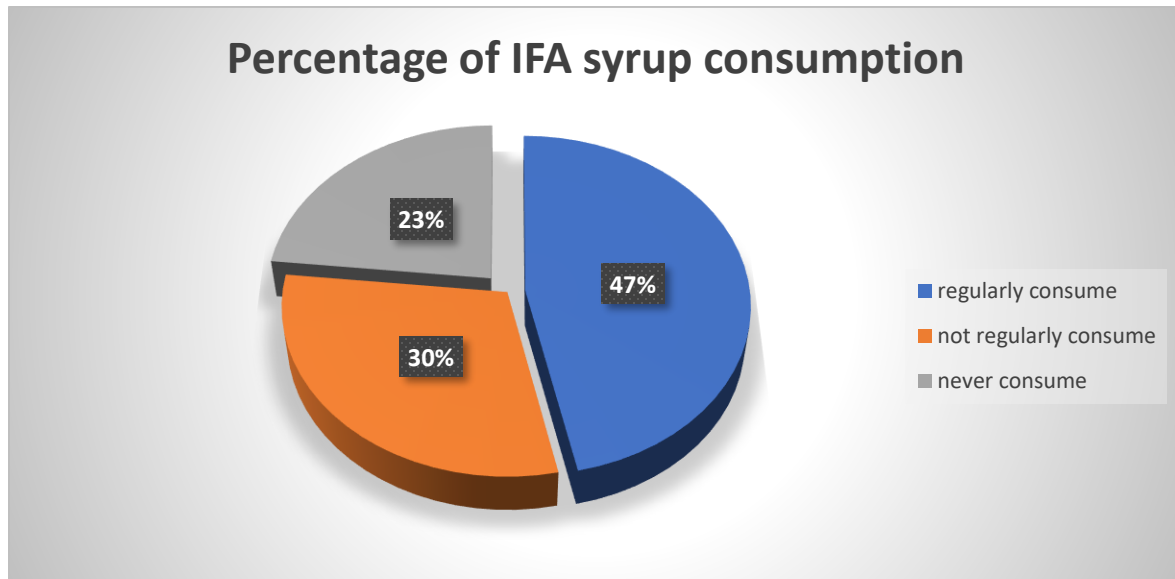
This chart shows the percentage of children regularly consume, rarely consume or never consume IFA syrup in Basoda Block.



This chart depicts that, According to the information collected from the respondents in Basoda Block, only 35% of the under 5 children consume IFA syrup on regular basis (twice a week), 40% of the children consume not regularly (once a week/once a month/as per convenience) and 25% of the U5 children does not consume IFA syrup.

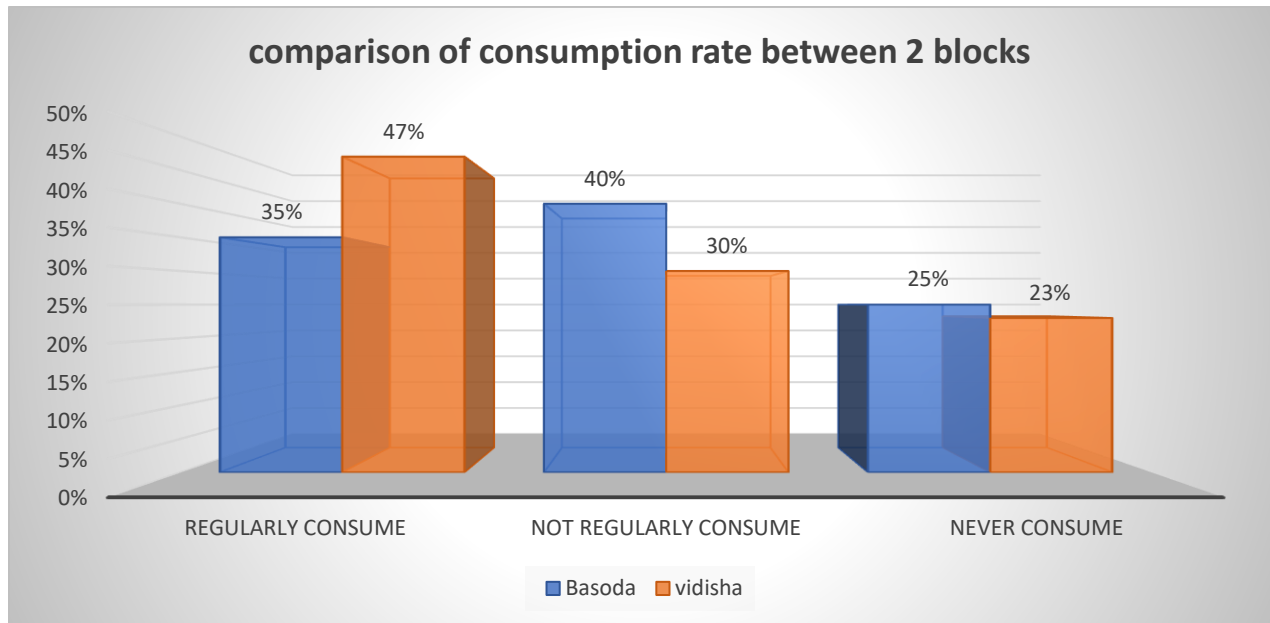
Chart 5:

This chart shows the percentage of children regularly consume, rarely consume or never consume IFA syrup in Vidisha Block.



This chart depicts that, According to the information collected from the respondents in Vidisha Block, 47% of the under 5 children consume IFA syrup on regular basis (twice a week), 30% of the children consume not regularly (once a week/once a month /as per convenience) and 23% of the U5 children does not consume IFA syrup.

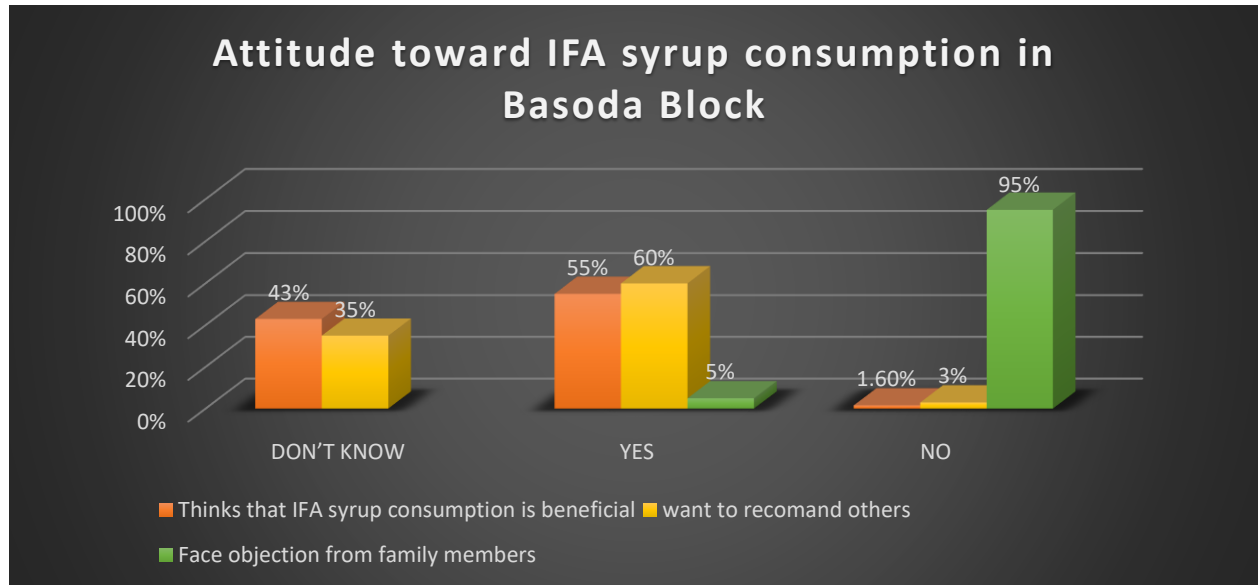
Chart 6: This chart shows the comparison on IFA syrup consumption rate between the Basoda and Vidisha Block.



This chart depicts that, regular IFA syrup consumption rate is higher and both rarely consumption and never consumption rate is lower in Vidisha Block than Basoda block.

Chart 7:

Attitude toward IFA syrup consumption in U5 children among mothers in Basoda Block.

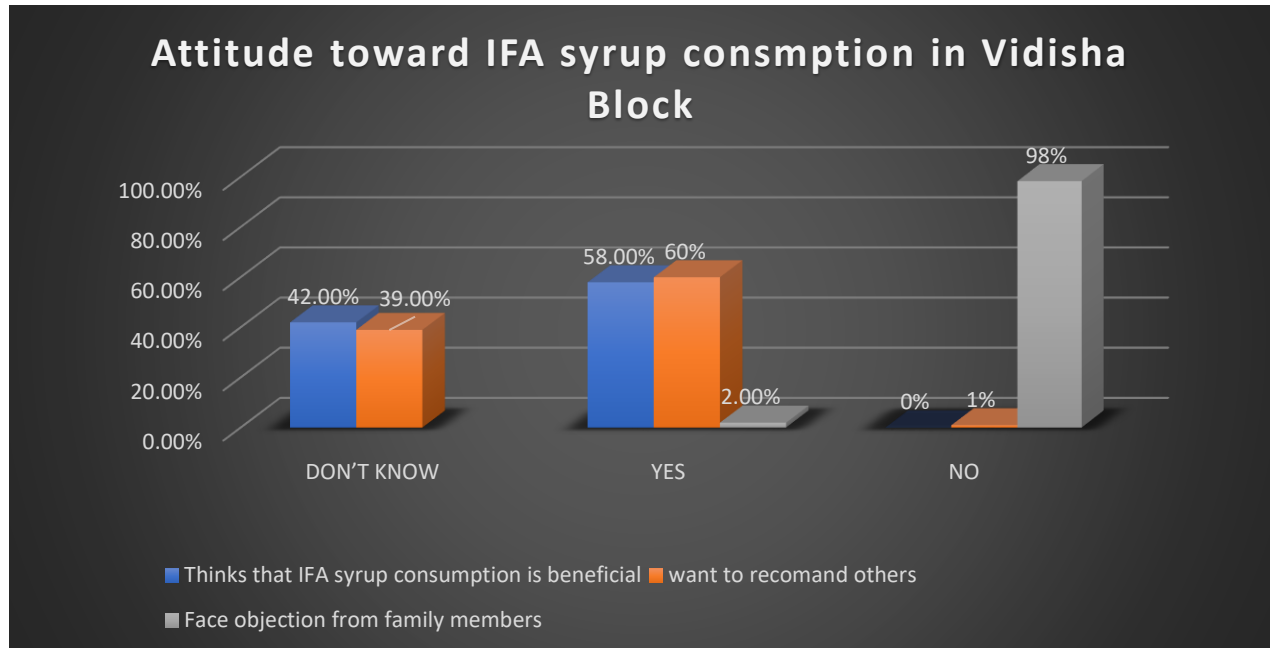


This chart indicates that ,InBasoda Block—

- 43% of the study population don't know that if IFA syrup consumption is beneficial or not,55% of the study population thinks that IFA syrup consumption is beneficial and 1% of the study population thinks that IFA syrup consumption is not beneficial for their child health.
- 35% of the study population cant clearly state that if they want to recommend to others,60% of the study population wants to recommend others for IFA syrup consumption and 3% of the study population don't want to recommend others for IFA syrup consumption.
- 5% of the interviewed mothers stated that their family members oppose from giving their child IFA supplements.

Chart 8 :

Attitude toward IFA syrup consumption in U5 children among mothers in Vidisha Block.

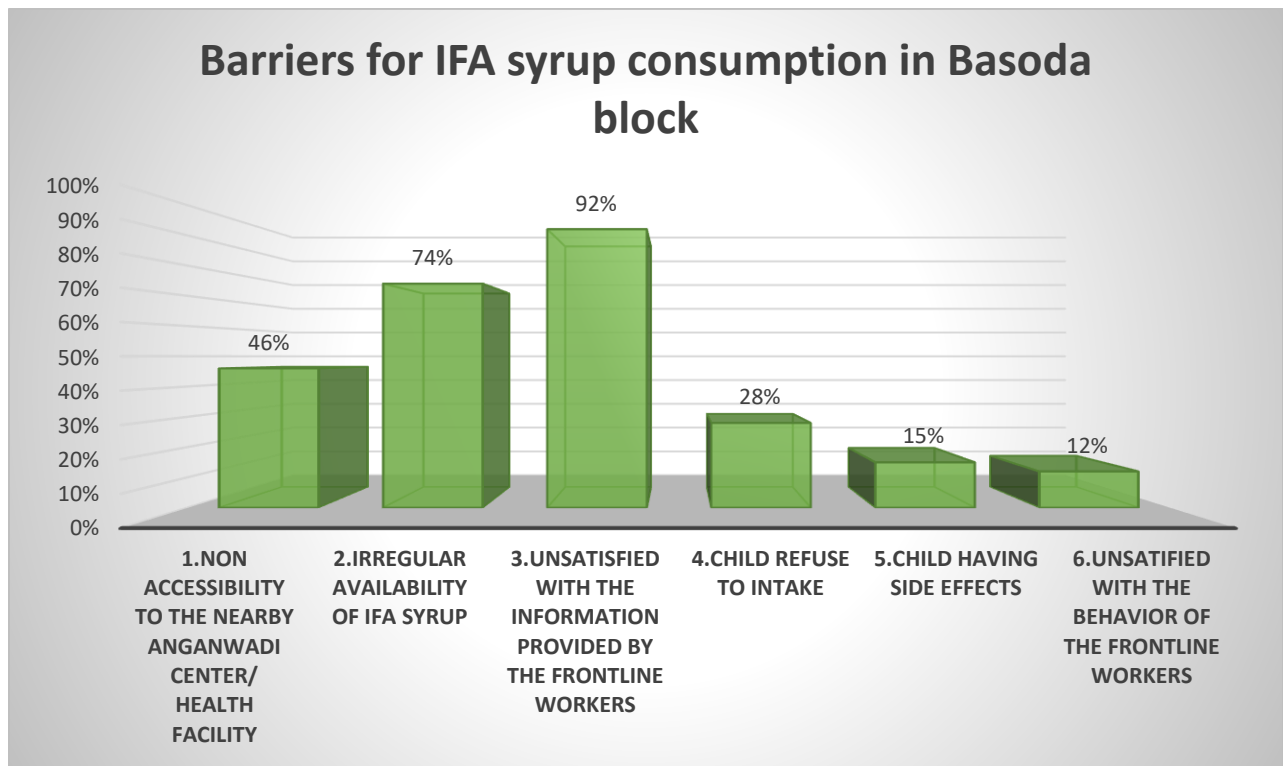


This chart indicates that ,In Vidisha Block–

- 42% of the study population don't know that if IFA syrup consumption is beneficial or not, 58% of the study population thinks that IFA syrup consumption is beneficial and none of the study population thinks that IFA syrup consumption is not beneficial for their child health.
- 39% of the study population cant clearly state that if they want to recommend to others, 60% of the study population wants to recommend others for IFA syrup consumption and 1% of the study population don't want to recommend others for IFA syrup consumption.
- 2% of the interviewed mothers stated that their family members oppose from giving their child IFA supplements.

Chart 9:

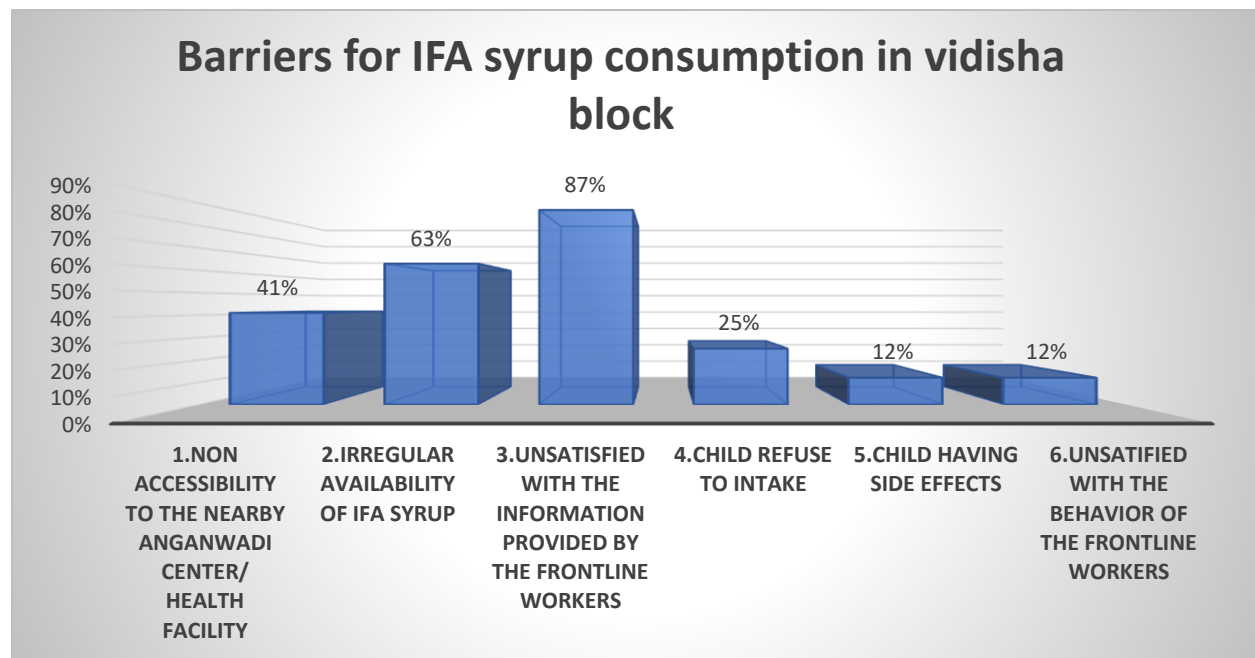
This graph indicates the percentage of barriers in IFA syrup consumption among u5 children in Basoda block. Here n= 39 (never intake= 15 out of 60, rarely intake = 24 out of 60)



This Chart shows that among 39 children(never intake= 15 out of 60, rarely intake = 24 out of 60)46% indicates the barrier as non accessibility to the nearby anganwadi center/health facility, 74% indicates irregular availability of IFA syrup, 92% indicates lack of awareness,28% indicates their child refuse to intake,15% indicates that their child have side effects due to consumption of IFA supplements, 12% indicates that they are unsatisfied with the behavior of the frontline workers.

Chart 10:

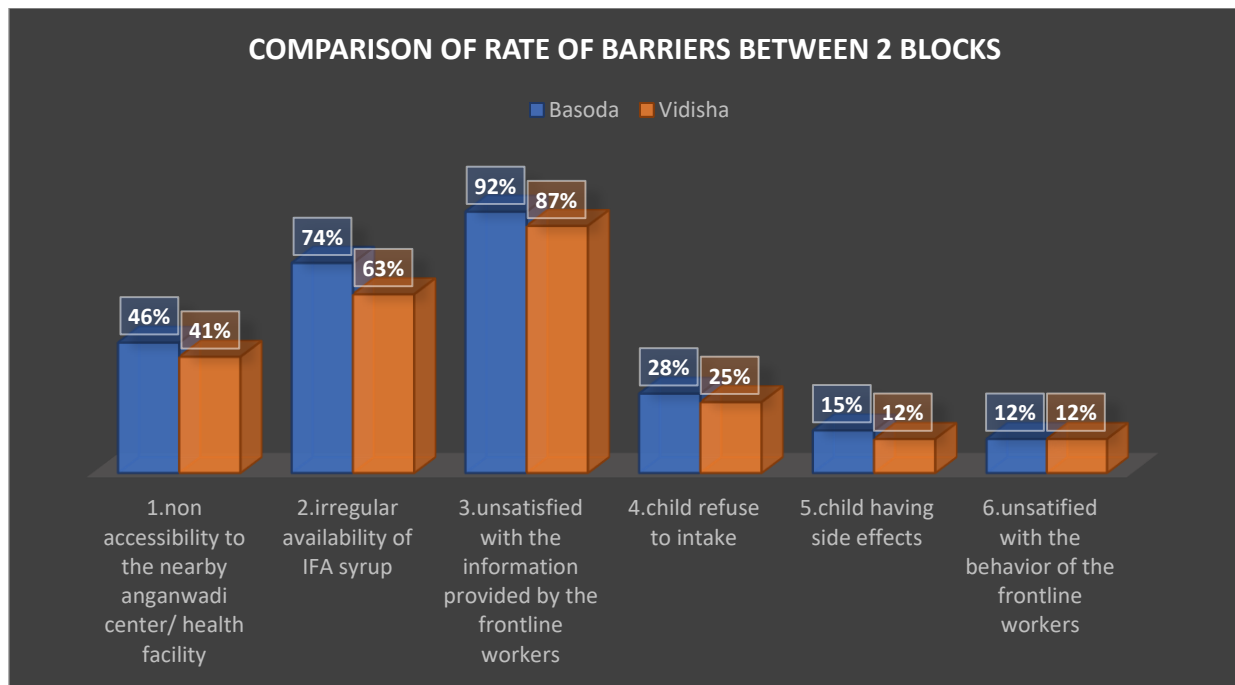
This graph indicates the percentage of barriers in IFA syrup consumption among u5 children in Vidisha block. Here n= 32(never intake= 25 out of 60, rarely intake = 11 out of 60)



This Chart shows that among 32 children (never intake= 14 out of 60, rarely intake = 18 out of 60) 41% indicates the barrier as non accessibility to the nearby anganwadi center/health facility, 63% indicates irregular availability of IFA syrup, 87% indicates lack of awareness, 25% indicates their child refuse to intake, 12% indicates that their child have side effects due to consumption of IFA supplements, 12% indicates that they are unsatisfied with the behavior of the frontline workers.

Chart 11:

This chart shows the comparison of the rate of barriers between Basoda and Vidisha Block.

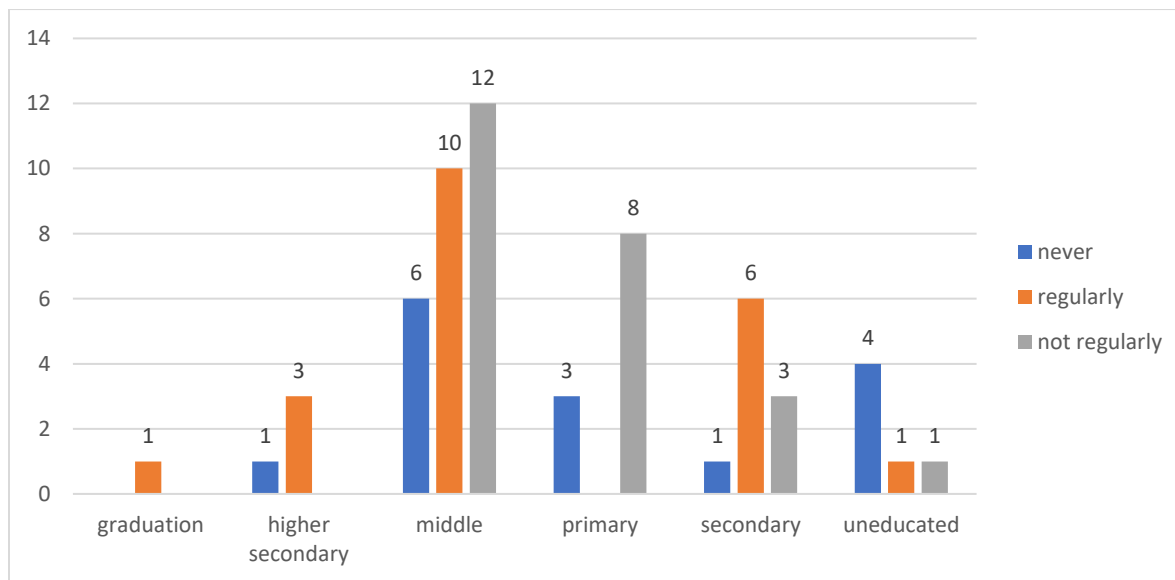


This Chart indicates that the percentage of occurrence of barriers is lesser in Vidisha Block than Basoda.

Chart 12:

This chart indicates the rate of correlation between the literacy level of the study population and the IFA syrup consumption rate among their child, in Basoda Block.

	Frequency of consuming IFA syrup			
Education Level	Never	Regularly	Not Regularly	Grand Total
Uneducated	4	1	1	6
Primary	3		8	11
Middle	6	10	12	28
Secondary	1	6	3	10
Higher secondary	1	3		4
Graduation or higher		1		1
Grand Total	15	21	24	60

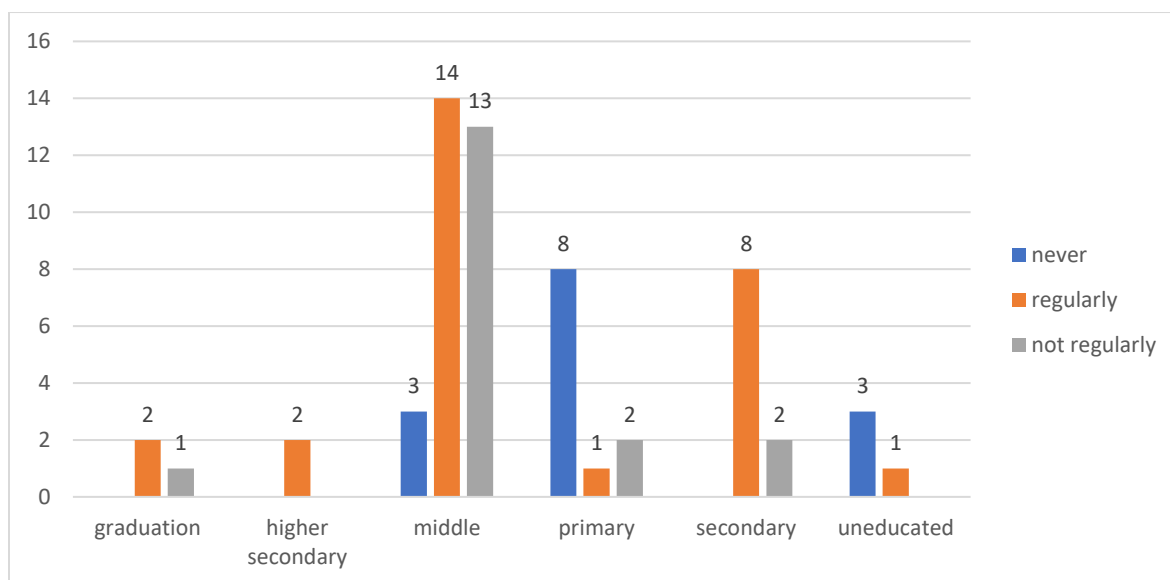


This Chart Indicates that higher level of education is inversely proportional to the higher number the regular basis consumption rate.

Chart 13:

This chart indicates the rate of correlation between the literacy level of the study population and the IFA syrup consumption rate among their child, in Vidisha Block.

Education level	Frequency of consuming IFA syrup			
	Never	Regularly	Not Regularly	Grand Total
Uneducated	3	1		4
Primary	8	1	2	11
Middle	3	14	13	30
Secondary		8	2	10
Higher secondary		2		2
Graduation		2	1	3
Grand Total	14	28	18	60



This Chart Indicates that higher level of education is inversely proportional to the higher number the regular basis consumption rate.

Discussion:

- The study shows that over all level of awareness regarding anemia is significantly low in Vidisha district.
- By comparing the two blocks, under study (Basoda and Vidisha block)it can be depicted that the indicators of the awareness(knowledge about anemia, knowledge about symptoms of anemia, knowledge about the preventive measures of anemia, knowledge about the benefits of consuming IFA syrup, knowledge about the dose of IFA syrup to be given, knowledge about the side effects of consuming IFA syrup)occurs in slightly more promising percentage in Vidisha block than Basoda
- According to the information collected from the respondents in Vidisha Block,47% and of the under 5 children consume IFA syrup on regular basis (twice a week),30% of the children does not consume regularly,(may be once a week/once a month /as per convenience) and 23% of the U5 children does not consume IFA syrup at all. In Basoda the rates are 35% ,40% and 25% respectively.
- From the comparison of 2 blocks we can interpret that the regular consumption rate is higher in Vidisha block than Basoda.
- On an average 60% of the respondent of both the blocks shows positive attitude toward recommending IFA syrup consumption,40% of the respondents were unaware.
- Knowledge among the frontline workers are satisfactory in both the district.
- From this study we strive to identify the Barriers which leads to the low compliance of regular intake of IFA supplements in U5 children. Non accessibility to the nearby anganwadi center/health facility, irregular availability of IFA syrup, lack of awareness, child refuse to intake, child have side effects due to consumption of IFA supplements, unsatisfied with the behavior of the frontline workers-among this 6 indicators most of the respondents indicates **non accessibility to the anganwadi center, unavailability of IFA supplements and lack of knowledge** – as the most commonly occurring barriers.46% of the respondent in Basoda block indicates non accessibility to the anganwadi center as the barrier, where in Vidisha Block the percentage is 41%.

From the study it was found that IFA syrup supplement supply is more irregular in Basoda block.74% and 63%of the respondent indicates irregular supply as the barrier in Basoda and Vidisha block respectively.

92% and 87% of the respondent have the issue of lack of knowledge as the reason for irregular IFA consumption in Basoda and Vidisha block respectively.
- The study also revealed that the higher level of education is directly proportional to the level of awareness and so as with the higher compliance of regular IFA syrup supplementation.

Recommendation :

The study shows that There are both supply and demand side opportunities present to improve the successful implementation of the flagship program of govt. of India i.d. NIPI program .As mentioned above that there is need for continuedefforts in improving the uptake by the beneficiaries by working closely with the front line workers in the community, effective delivery of IFA Syrup to Anganwadi Centers (AWCs) warranting a special need altogether .

- **Strengthen Community Mobilization:** A effective community mobilization strategy should be planned and implemented to generate a demand side from the community itself for IFA supplements. Mobilizing the women in the program setting will increase the awareness regarding anemia and benefits of IFA supplements. For community mobilization, the health workers play a pivotal role in building cognizance in the society. Extensive training modules, BBC and IEC materials should be made which can help the frontline workers on counselling part and to enhance the awareness among mothers regarding their child's health .
- **Streamlining the supply chain gap:** Besides improving the knowledge of providers, the program requires to streamline the gaps in the supply chain of IFA. Instead of top down approach, there is a need of apply bottom up approach for fulfilling the IFA requirements of an Anganwadi center so that adequate quantity of IFA can be provided to Anganwadi centers .
- **Monitoring and evaluation:** This seem to major areas needing attention. Good initiatives are losing ground and some opportunities being missed. A surveillance system to ensure appropriate monitoring of iron syrup supply status and consumption rate using indicators ; should be developed .
- **Capacity building:** Capacity building of frontline workers must be done by providing them timely training, by their job mentoring and by providing them hand holding support.

Conclusion:

Anemia is one of the significant issue , that needs to be immediately attended to. Strategies and documents endorse this need. It is strongly advocated by WHO / UNICEF that,when there is a prevalence of anemia above 40%, a universal supplementation is required and it is not cost-effective to screen children for anemia. Other countries as well as India had came up with various initiative programs for reducing the prevalence of anemia by implementing universal supplementation. Though the programs are in place, it is not being implemented at any significant level. The small amount of data that exists regarding the program points to poor implementation.In this rural community of Madhya Pradesh India, the compliances of iron folic acid syrup are still far behind to reach the National Goal, the service component are not quite strong by the front line workers in terms of enhancing awareness of the community regarding anemia and its preventive measures. Inaccessibility of the house holds and mainly the irregular supply contributes as barriers on a large note. Government policies should first ensures the regular availability of IFA syrup in all the anganwadi centers.More innovated initiatives are needed to increase the awareness among the community.It is therefore recommended that we need to bridge the gap between our desire to control and reduce anemia among children and our lack of action and apathy toward implementing an effective program in anemia control among children. It is needed to emphasize, train, support, and effectively monitor the program's implementation, and systematically and realistically plan out logistics, supply, monitoring, and implementation of the program at the regional, national, state, and district levels. Only then will this scourge of children, that is, anemia, be adequately controlled and the fruits that the program promises will actually be delivered.

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