

A study of Adverse Events Following Immunization

Presented

by –

Kiran Kumari

MBA-DM 10

Under guidance

of

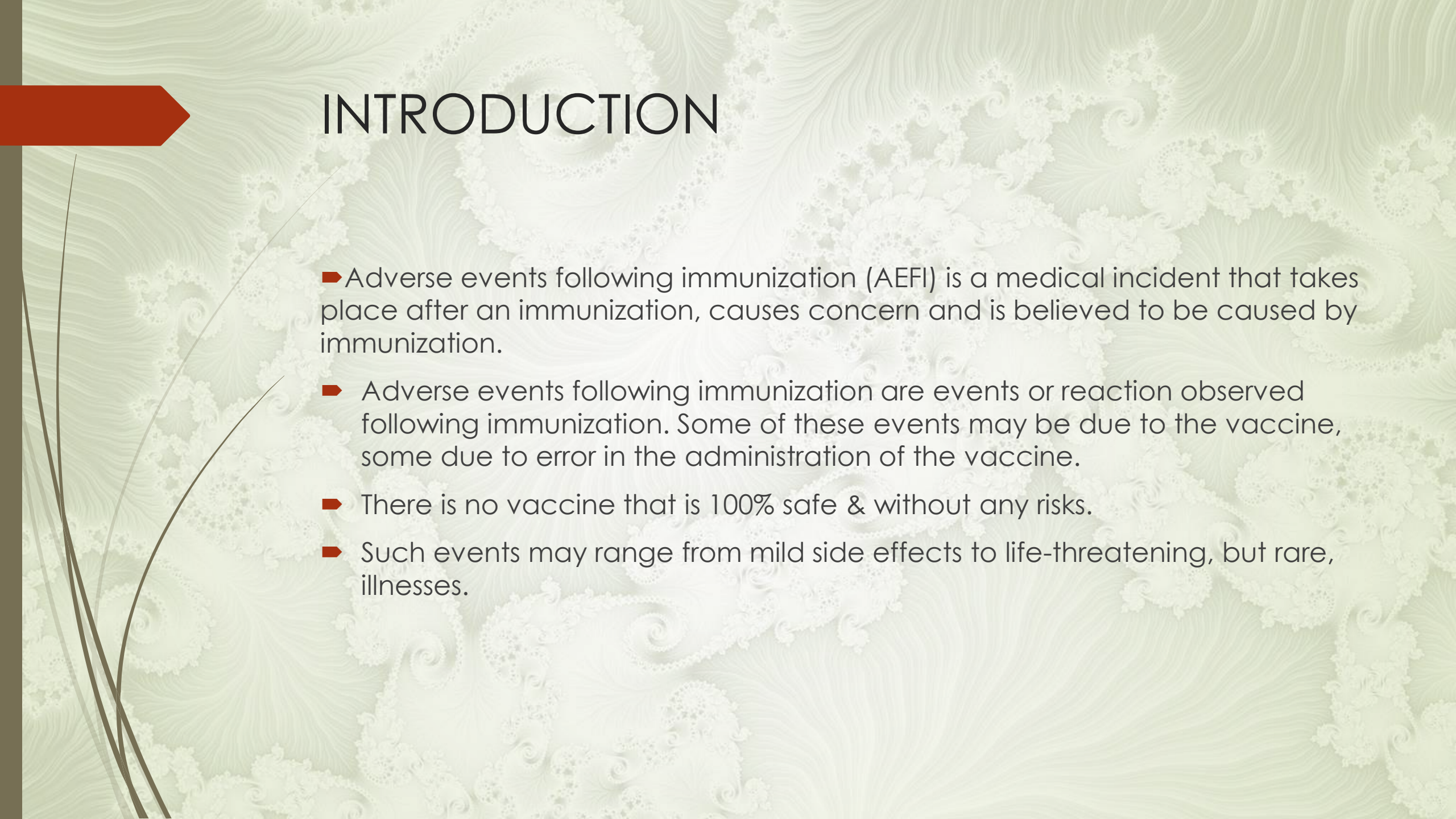
Dr. Kajal Sitlani



TABLE OF CONTENTS

- INTRODUCTION
- LITERATURE REVIEW
- METHODOLOGY
- RESULTS
- DISCUSSION
- CONCLUSION & RECOMMENDATION





INTRODUCTION

- Adverse events following immunization (AEFI) is a medical incident that takes place after an immunization, causes concern and is believed to be caused by immunization.
- Adverse events following immunization are events or reaction observed following immunization. Some of these events may be due to the vaccine, some due to error in the administration of the vaccine.
- There is no vaccine that is 100% safe & without any risks.
- Such events may range from mild side effects to life-threatening, but rare, illnesses.



Type of AEFI

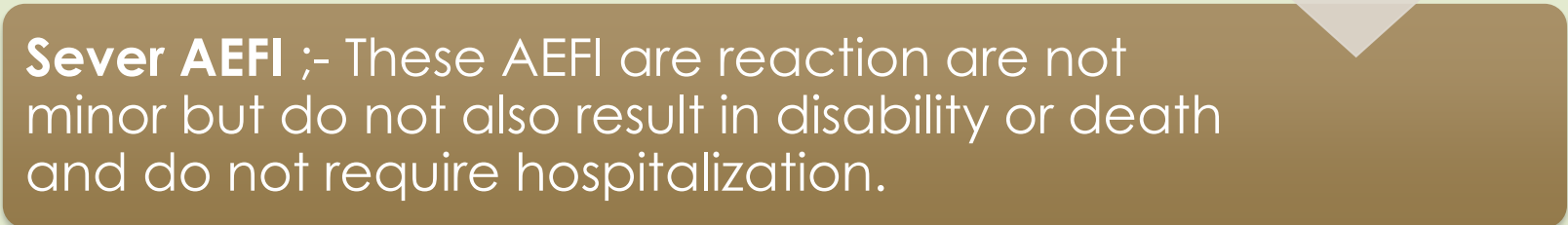
Common minor AEFI :- Local reaction, fever and systemic symptoms are include it.



Serious AEFI :- These are those AEFI In which hospitalize and significant disability.



Sever AEFI :- These AEFI are reaction are not minor but do not also result in disability or death and do not require hospitalization.





Mild Reaction

- Mild reactions following immunization are common.
- They include pain & swelling at the site of injection, fever, irritability, malaise.
- They are self-limiting, hardly requiring even symptomatic treatment.
- But it is important to reassure parents about such events so that they know about it.



Rare, more severe reactions

- Severe reactions are rare
- Such reactions include seizures, thrombocyte-paenia, hypotonic hyporesponsive episodes, persistent inconsolable screaming.
- In most cases they are self-limiting and lead to no long-term problems
- anaphylaxis while potentially fatal, is treatable without any long-term effects.

Example of type & Frequency of AEFIs (in some common vaccines)

Vaccine	Reaction	Onset Interval
BCG	Suppurative Lymphadenitis, BCG osteitis Disseminated BCG-it is	2-6 months 1-12 months 1-12 months
Hib	Nil known	
Hepatitis B	Anaphylaxis Guillain-Barre Syndrome (plasma derived)	0-1 hour 1-6 Weeks
Measles/MMR	Febrile seizures Thrombocytopaenia Anaphylaxis	5-12 days 15-35 days 0-1 hour
OPV	Vaccine associated paralytic polio (VAPP)	4-30 days
DTP	Persistent (>3 hrs) inconsolable crying Seizures Hypotonic, hyporesponsive episode Anaphylaxis Encephalopathy	0-24 hours 0-3 days 0-24 hours 0-1 hours 0-3 days
Yellow Fever	Post-vaccination encephalitis Allergic/anaphylaxis	7-12 days 0-1 hours

Avoiding program Error

- ✓ Use sterile needle & syringe for every injection. And don't reused after a injection to used of vaccination
- ✓ Reconstitute only with specific diluent.
- ✓ Discard reconstituted vaccine after six hours
- ✓ Do not store drugs & other medicines in the same fridge as the vaccine and diluents.
- ✓ Train & supervise health workers to ensure safe injection practices.
- ✓ Monitor, investigate and Act, when AEFIs occur.

Why monitor AEFI?

- No vaccines are 100% safe and without any risks.
- It is important to know the risks and how to handle such an event when it occurs .
- Informing people correctly on AEFI helps keep public's confidence in the immunization programs.
- Monitoring AEFI helps improved the quality of service.



Research question

1. what is the routine immunization for effective of communication initiatives in charging or reinforcing knowledge attitudes or behaviors towards vaccination?

2. What are the major challenges for routine immunization system in rural areas?

➤ **Objective of Study**

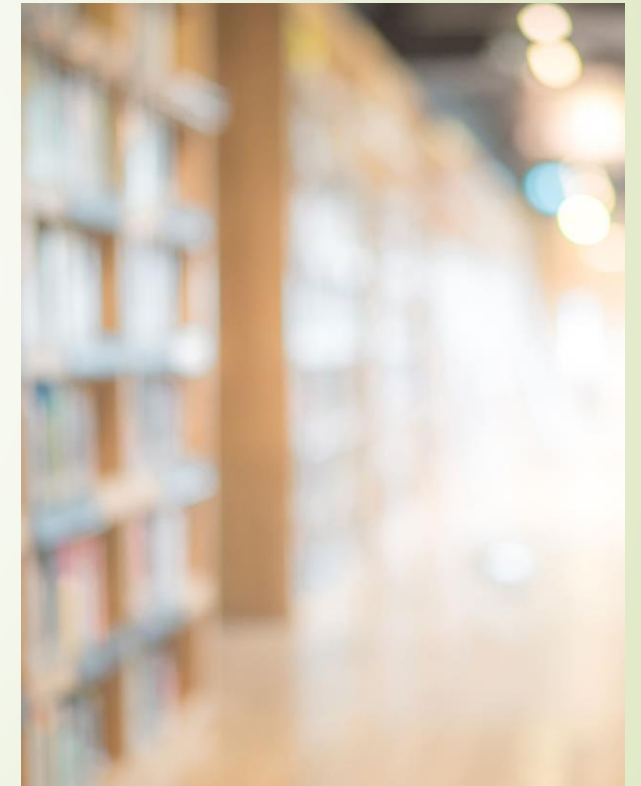
- To rapidly increase immunization coverage.
- To enhance the quality of routine immunization service and reducing risk.
- To increase the knowledge, attitude, and perception about routine immunization and adverse reaction and create awareness in the society.
- To identify urgent problem for investigation after immunization.
- To develop a reliable cold chain at the level of healthcare.

LITERATURE REVIEW

Kundu (2010) – Accessed and capacity studied children immunization for girls at the primary level of healthcare and the study showed socioeconomic heterogeneity underpinning low immunization in India and consistent data analysis from the rural National family health survey and urban areas, and they revealed significant gender bias in immunization coverage.

Sylvia E. Caingles, MD Joanne J. Lobo, M.D (2011) – Describe this study conduct on a survey of parent's knowledge, attitudes, and behaviors from which I found that the vaccination of children depends on the desire and influence of the parents on the absence of pre-vaccination and the availability of results.

Soundarya Mahalingam¹, Abhijna soori², pradhun Ram², Basavaprabhu Achappa³, Muktachowta⁴, Deepak Madi³, (2014) - the children under 5 years of age as well as mother's knowledge, attitudes, and perception about vaccination in India are describe. This is a significant number and mother's conclusion in India. Rural area was unaware of vaccination and its consequences, even in the city. KAP was discovered to be crucial.





Katrin S. Kohl, S. Michael Marcy et al., A study of vaccination illness using present notions, with the goal of improving eventual understanding of science. The medical economic and epidemiologic runoff of fevers still prevalent today in the form of AEFI. We consider in detail the risk of complications of the disease, the evaluation of fever in a child after vaccination. As a result of which the vaccination evaluation and reporting events on a global scale proposed by collaborations such as the real significance of these events.



METHODOLOGY

STUDY DESIGN

The study would be adopted mixed research method where qualitative and quantitative both data were used for the research process and the researcher increases vaccination p and reduce adverse reactions after vaccination to the organizing research findings.

STUDY DURATION

The study duration was 90 days i.e., 1st March to 31 May 2023.

SAMPLE SIZE

The study would be conduct with 150 simple size.





Study Population

In this study child health and proper vaccination camps were organized in various residential societies in Sanchoe Block under rural areas.

➤ Inclusion Criteria

The male and female both are youngsters under the age group 5 years.

Children receive vaccination in accordance with WHO recommendations.

➤ Exclusion Criteria

Children with birth Disabilities the male and female both of children are in birth 0-5 years.

➤ Study tools

Interview – (ASHA, ANM, and face to face communication into stakeholder)

Primary research through knowledge questionnaires and secondary research.



➤ Data Analysis Procedure

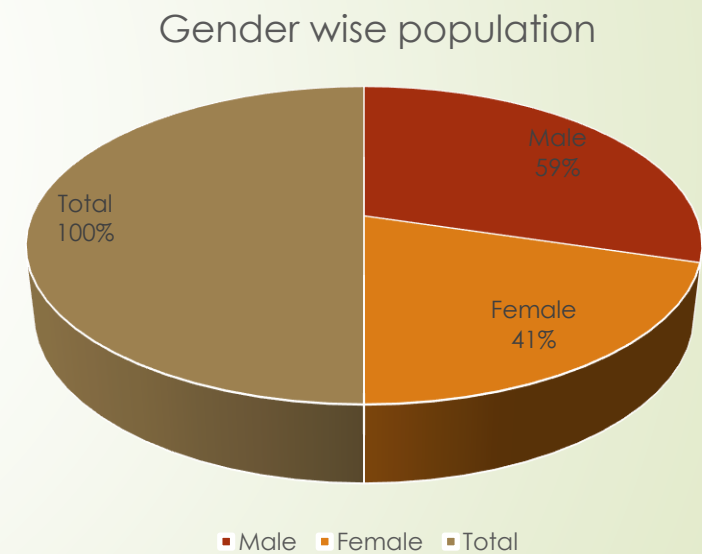
In the study used of primary data collected for the qualitative and quantitative method were developing focusing on the positive and negative impacts of Adverse Events Following Immunization inclusion.

- Face to Face Interview
- Key person or discussion

Results

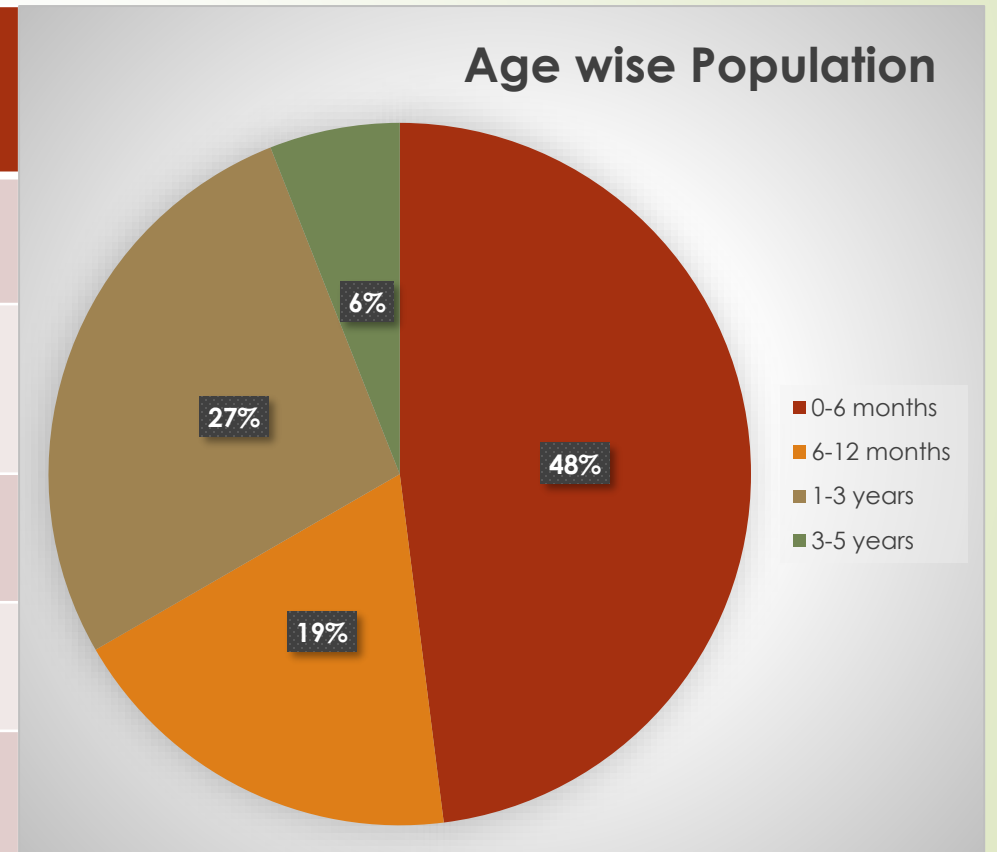
Gender wise population

Gender	Total	Percentage
Male	89	59%
Female	61	41%
Total	150	100%



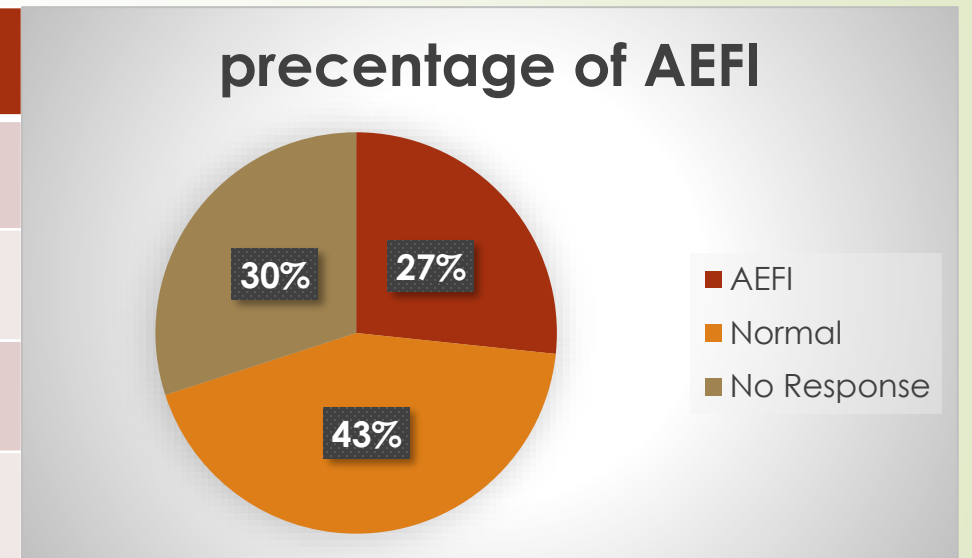
Age wise Population

Age	Total	Percentage
0-6 months	72	48%
6-12 months	28	19%
1-3 years	41	27%
3-5 years	9	6%
Total	150	100%



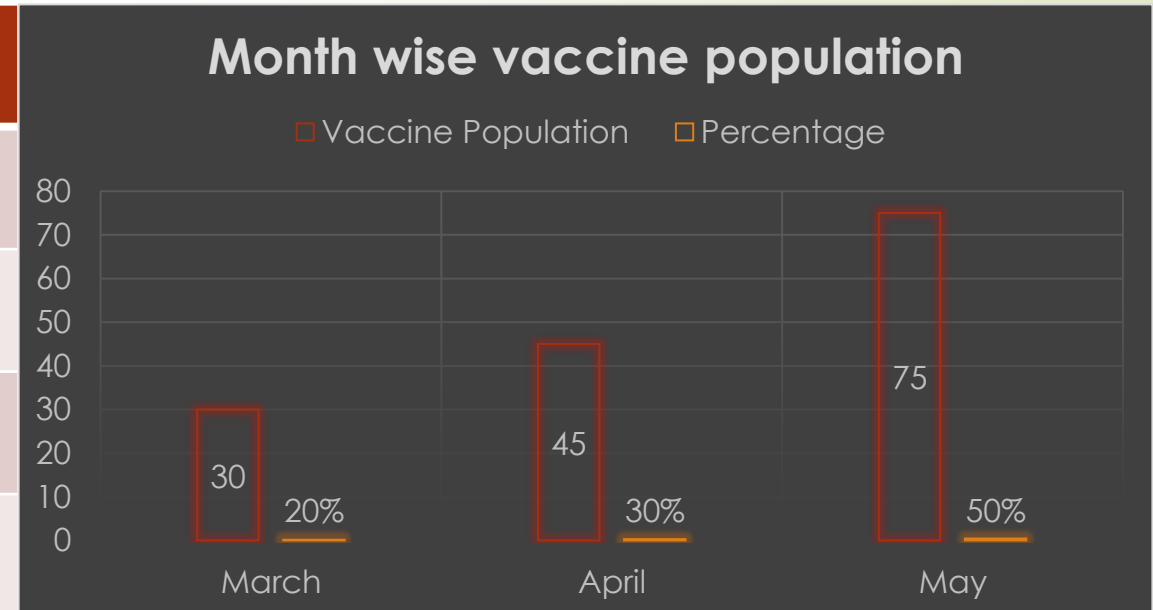
Percentage of AEFI

Category	Total	Percentage
AEFI	40	27%
Normal	65	43%
No Response	45	30%
Total	150	100%



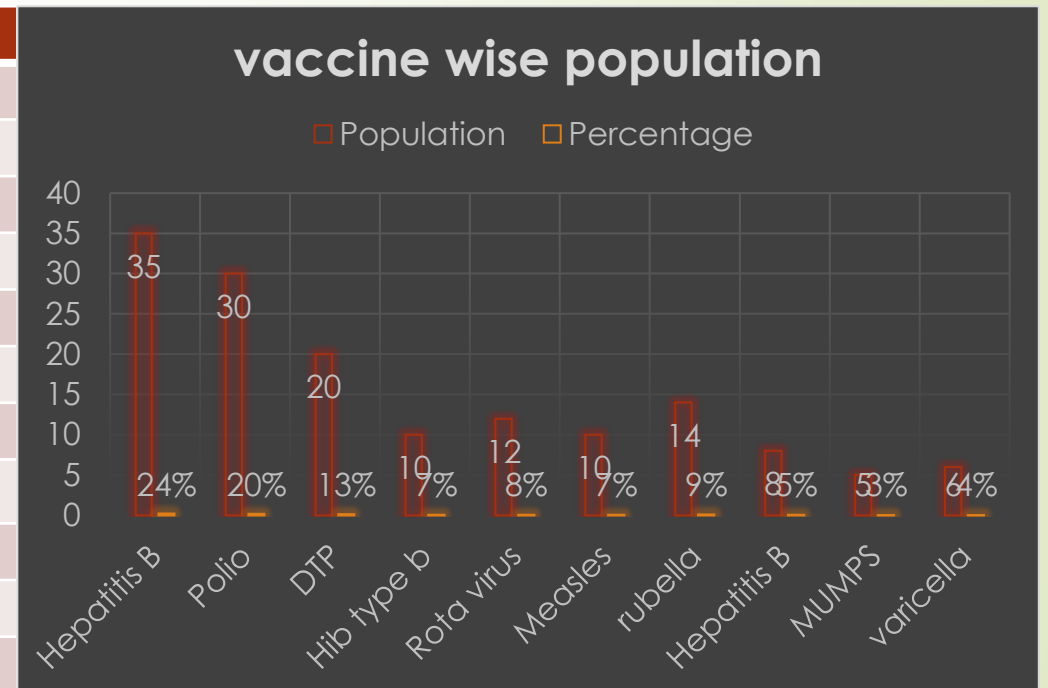
Month wise vaccine population

Month	Vaccine Population	Percentage
March	30	20%
April	45	30%
May	75	50%
Total	150	100%



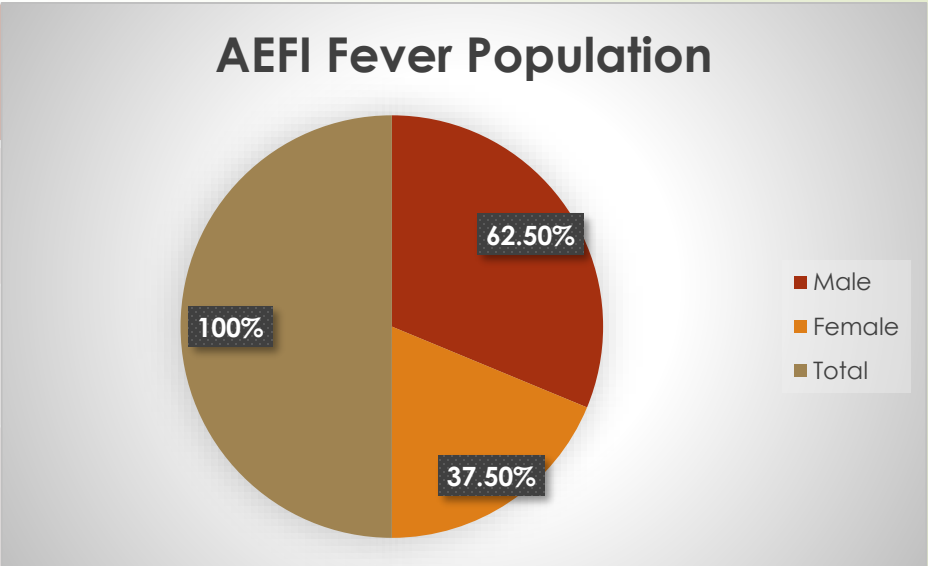
Vaccine wise population

Vaccine	Population	Percentage
Hepatitis B	35	24%
Polio	30	20%
DTP	20	13%
Hib type b	10	7%
Rota virus	12	8%
Measles	10	7%
rubella	14	9%
Hepatitis B	8	5%
MUMPS	5	3%
varicella	6	4%
Total	150	100%



AEFI fever population

Gender	Population	Percentage
Male	25	62.5%
Female	15	37.5%
Total	40	100%





Discussion

- The immunization one of the most-effective disease prevention means measles, carry significant morbidity and mortality in children under the age group 0-5 years.
- To rapidly increase the routine immunization, there for organized the AEFI vaccine awareness health camp and identify the reaction of time to time monitoring children vaccine below 5 years of age.
- To enhance the quality of routine immunization and reducing risk therefore to keep in mind don't use of incorrect dose of vaccine, wrong site, wrong diluent, improper storage & handling use of other medicine as diluents etc.
- To increase the knowledge, attitude, and perception about routine immunization and adverse reaction and create awareness in the society and communication inform the public, media people on the events action being taken next steps after treat the patient as the first response well maintains the cold chain in correct/proper the diluent was used vaccine



Conclusion & Recommendations

- The study through that awareness and knowledge about vaccination should be of concern to the people and overall health workers and the public should be educated about the AEFI reports. And should be address the issue to promote the safety profit of vaccine.
- Vaccine awareness should be increased using mass-media such as Television, Radio, and Newspapers etc.
- There is a need for passive surveillance to identify reaction and time to time monitors and reported to health sectors.
- Training of health workers & supervision to prevent avoidable AEFIs in future.



Thankyou