

# UPDATE ON QUALITY IMPROVEMENT ACTIVITIES IN THE SUNYANI MUNICIPAL HOSPITAL

## BONO REGION



# REDUCING THE INCIDENCE OF NEWBORN BIRTH ASPHYXIA AT THE MATERNITY UNIT OF THE SUNYANI MUNICIPAL HOSPITAL ---

## SUSTAINING THE GAINS

Quality, Equity, Dignity  
A Network for Improving Quality of Care  
for Maternal, Newborn and Child Health



# Overview

- Morbidity of neonates at the maternity ward resulting in their admission to the NICU was analyzed using the Pareto chart to identify the condition causing most of the admission
- Fishbone analysis was done to identify the contributing factors to the problem over 6 weeks
- There was a significant reduction in the incidence of asphyxia after the test of the change idea over a period of Six (6) weeks. The team has rolled out the change idea

# Background

- There are diverse causes of ill health among the neonate within the neonatal period. Asphyxia is identified by the World Health Organization (WHO) as causing 900,000 deaths annually.
- In 2020 the incidence of birth asphyxia in the Bono region was 39/1000LB and the at the Municipal level was 46/1000LB with the Sunyani Municipal Hospital recording **63/1000LB**.
- Birth Asphyxia is also identified as one of the leading causes of neonatal mortality in the Sunyani Municipal Hospital accounting for **62.5%** of our neonatal mortality.



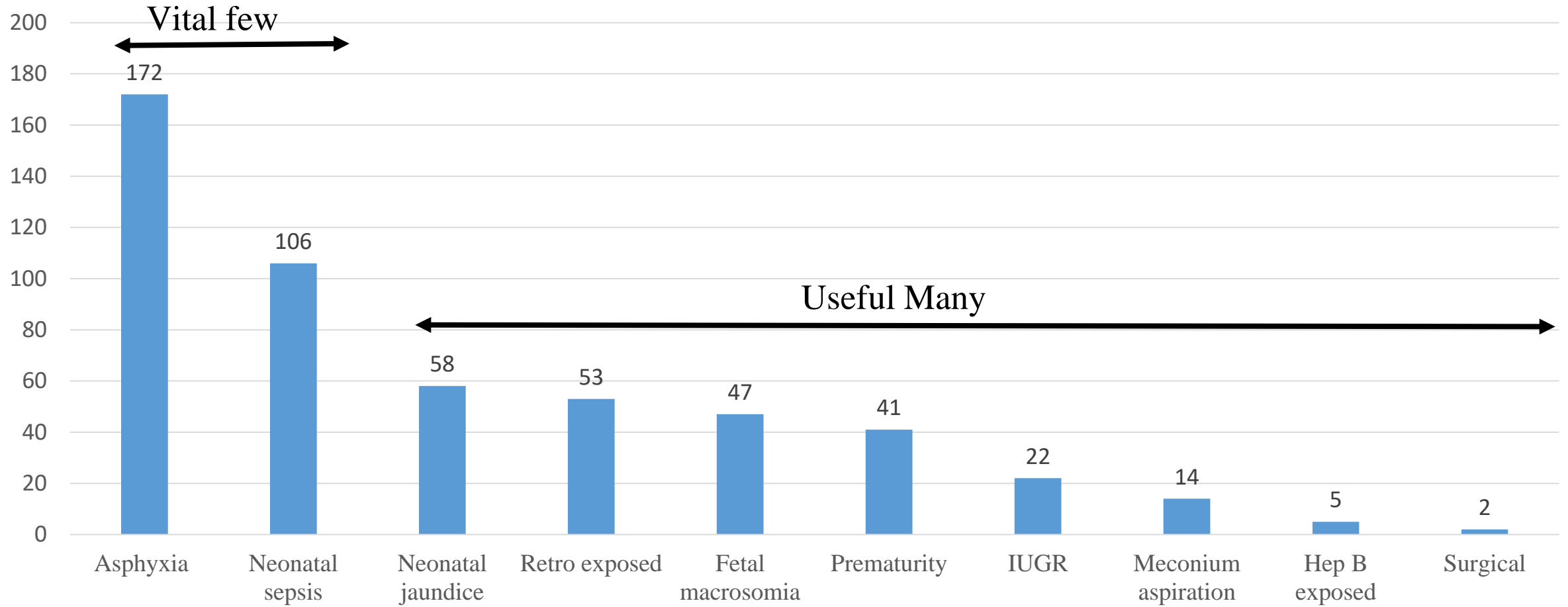
# Background

- Data on the number of asphyxia cases in maternity unit in the facility was reviewed from 1<sup>st</sup> June 2020 to 30<sup>th</sup> June 2021. The registers at the maternity and DHIMS were the sources of data.
- The data was analyzed using the PARETO Chart



# Background Cont'd

PARETO CHART OF NEWBORN MORBIDITY AT THE MATERNITY WARD

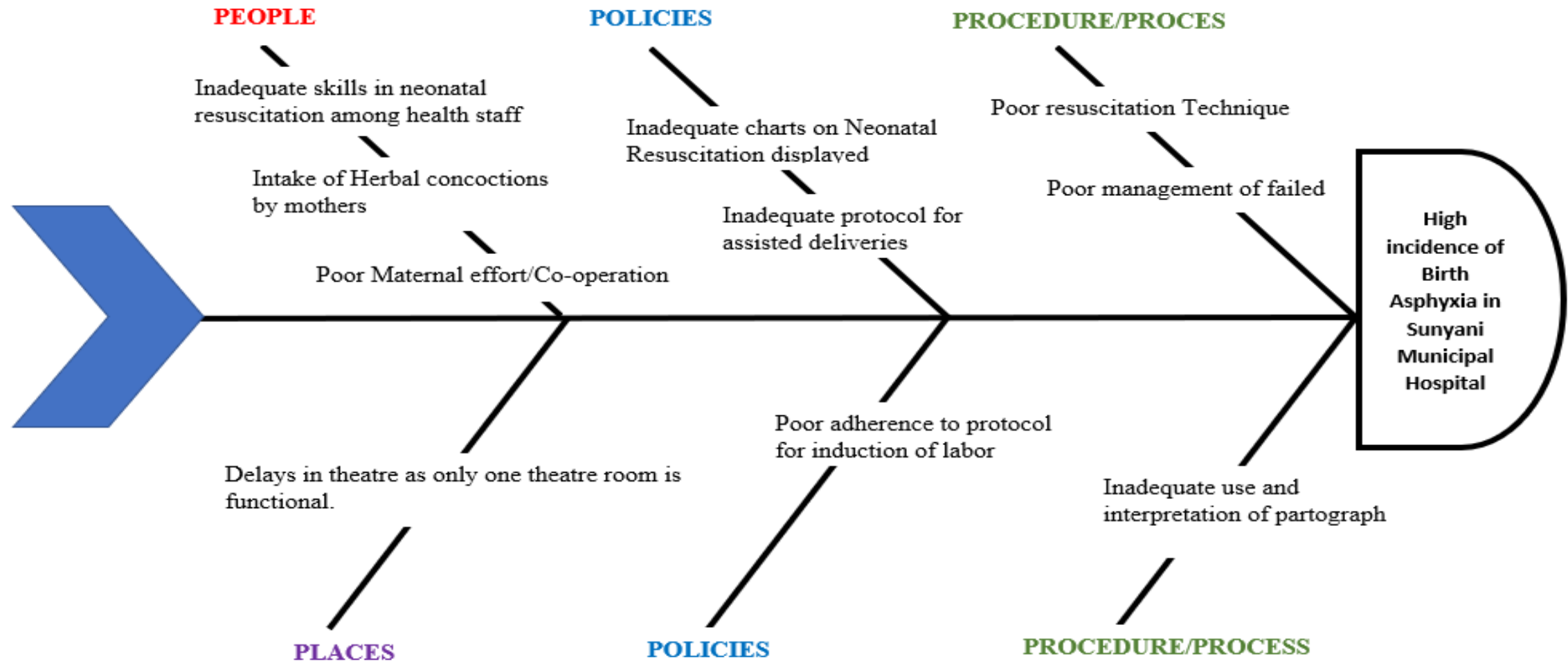


# Objective — test period

- We aim to reduce the incidence of birth asphyxia in the Sunyani Municipal Hospital Maternity from 63 per 1000 live births to 32 per 1000 live births by 31<sup>st</sup> August, 2021



# Method



# Method Cont'd - Training

<b>What measure will you use?</b>	
<b>Neonatal resuscitation training</b>	Process
<b>Numerator</b>	Number of staff trained
<b>Denominator</b>	Total number of staff at the maternity
<b>What data sources will you use?</b>	Inservice training attendance book HRIM data on maternity staff
<b>How frequently will you review data?</b>	Monthly
<b>Who will be responsible?</b>	QI Team

# Method Cont'd – Partograph use

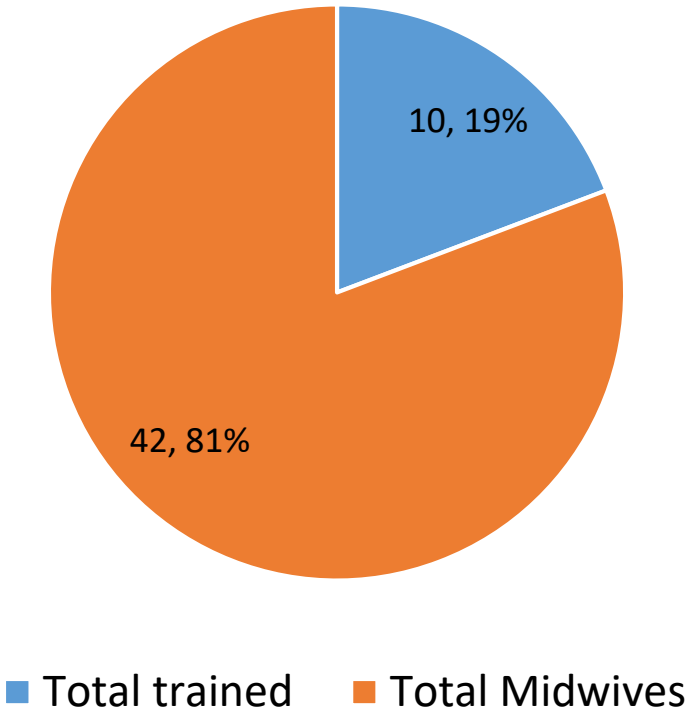
<b>What measure will you use?</b>	
<b>Effective and proper use of partograph</b>	Process
<b>Numerator</b>	Number of delivery with partograph used
<b>Denominator</b>	Total number of Deliveries over the period
<b>What data sources will you use?</b>	Deliveries records
<b>How frequently will you review data?</b>	Daily
<b>Who will be responsible?</b>	Maternity In-Charge

# Method Cont'd – Education-test period

<b>What measure will you use?</b>	
<b>Education of mothers at ANC, Maternity and Pregnancy School</b>	Process
<b>Numerator</b>	Number of education sessions on Birth Asphyxia
<b>Denominator</b>	Total number of health educations held over the period
<b>What data sources will you use?</b>	Health Education Register
<b>How frequently will you review data?</b>	Monthly
<b>Who will be responsible?</b>	QI Team

# Results/Key Findings-<sub>test period</sub>

NUMBER OF STAFF TRAINED AGIANST TOTAL  
NUMBER OF STAFF



# Training of staff on Neonatal Resuscitation- test period



World Health  
Organization

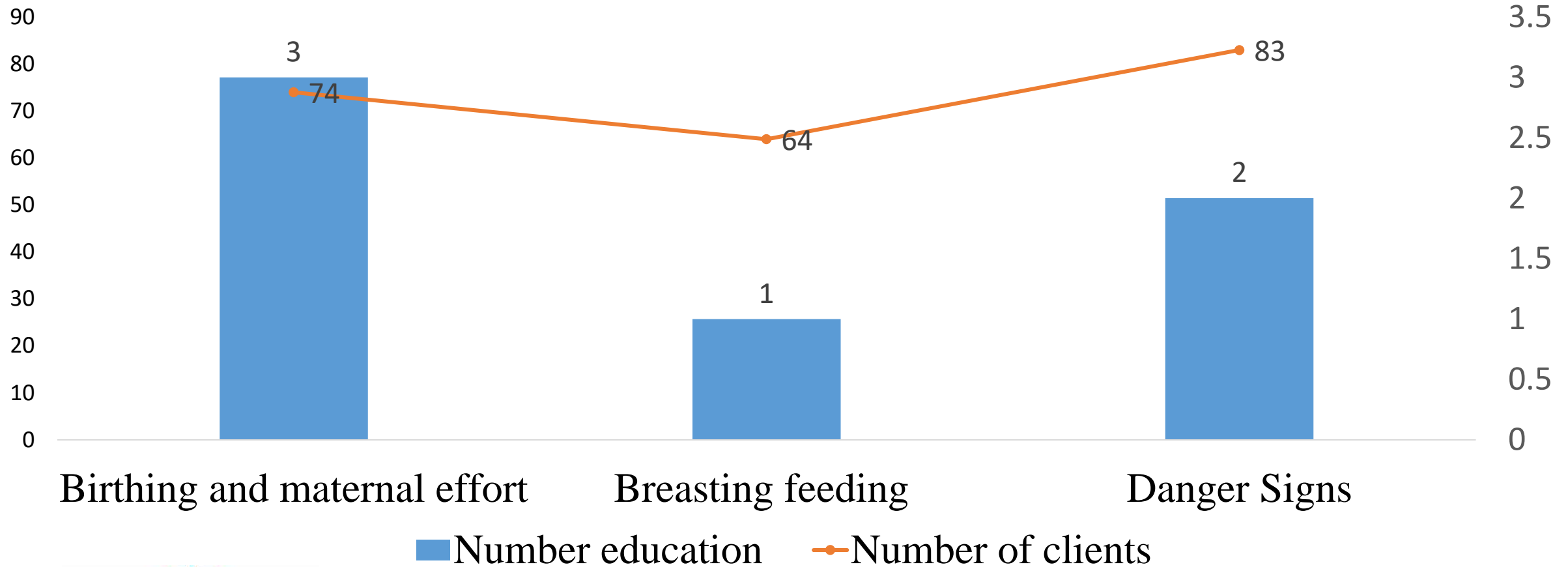


# Results/Key Findings for partograph- test period

SVD	138
Partograph use	101
Correct use	79
Incorrect use	22

# Results/Key Findings – Education<sup>-test period</sup>

## TOPICS TREATED AT THE PREGNANCY SCHOOL

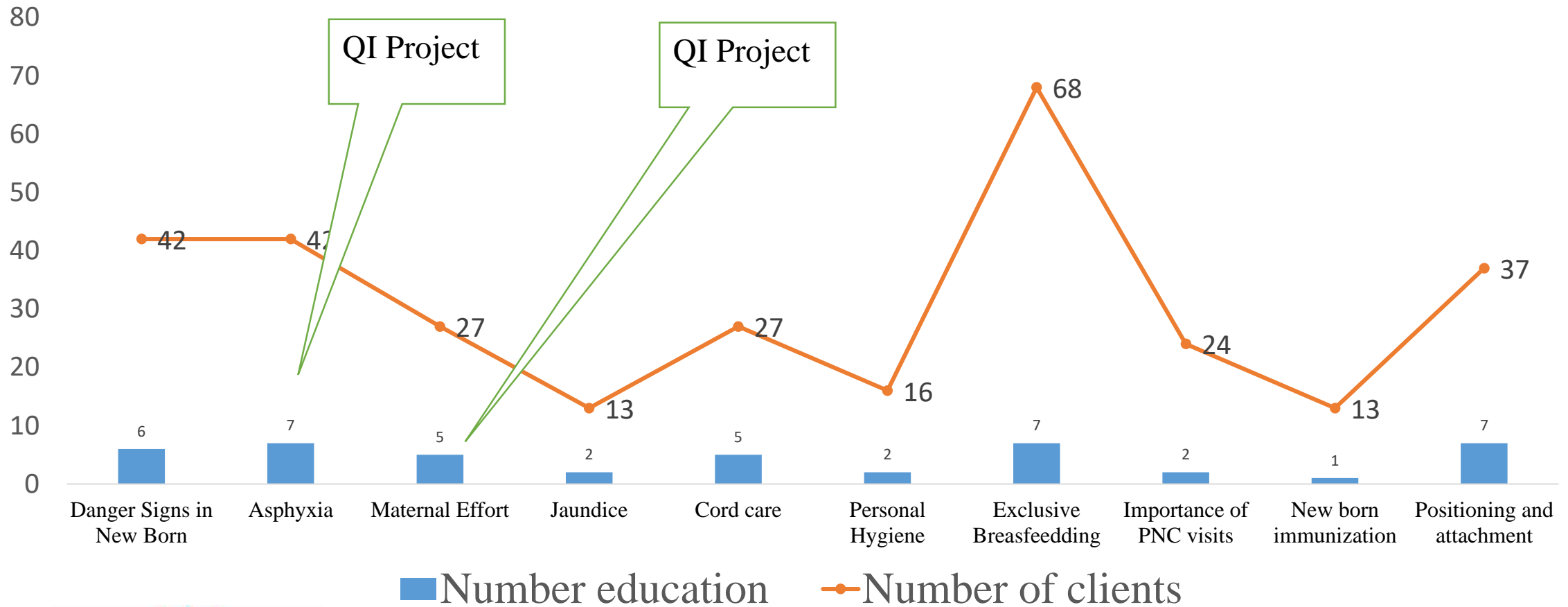


# Education At The Pregnancy School- test period



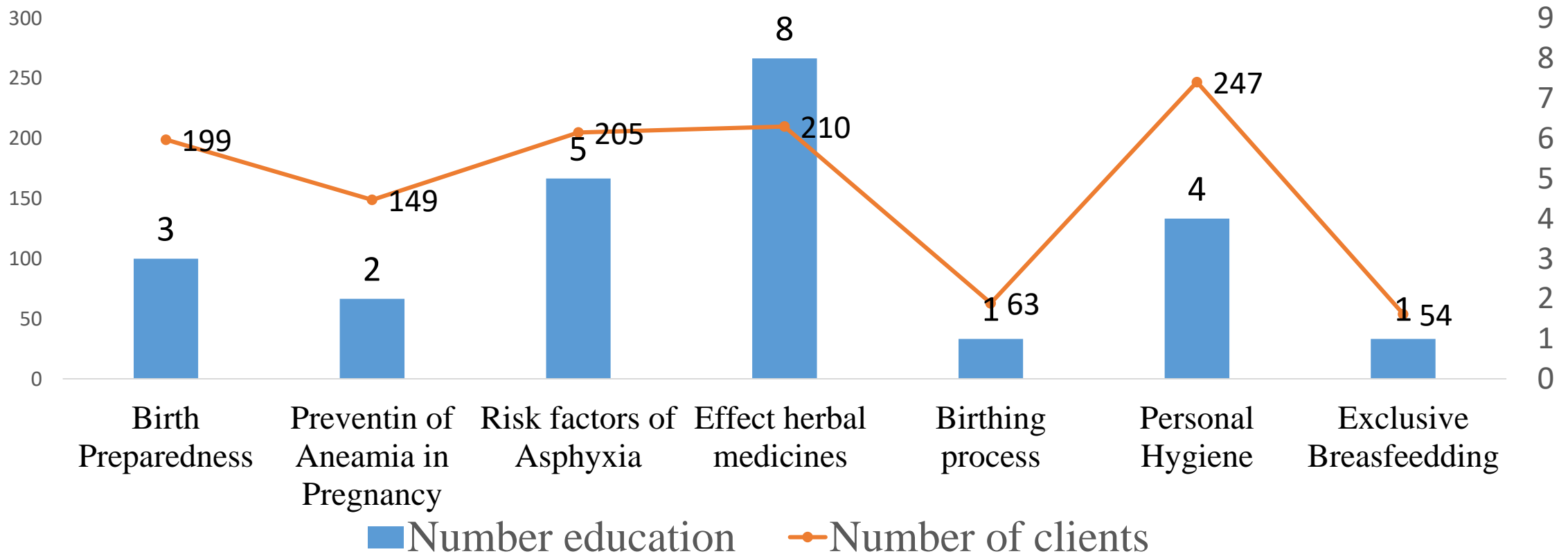
# Results/Key Findings- test period

## Number of Education at Maternity



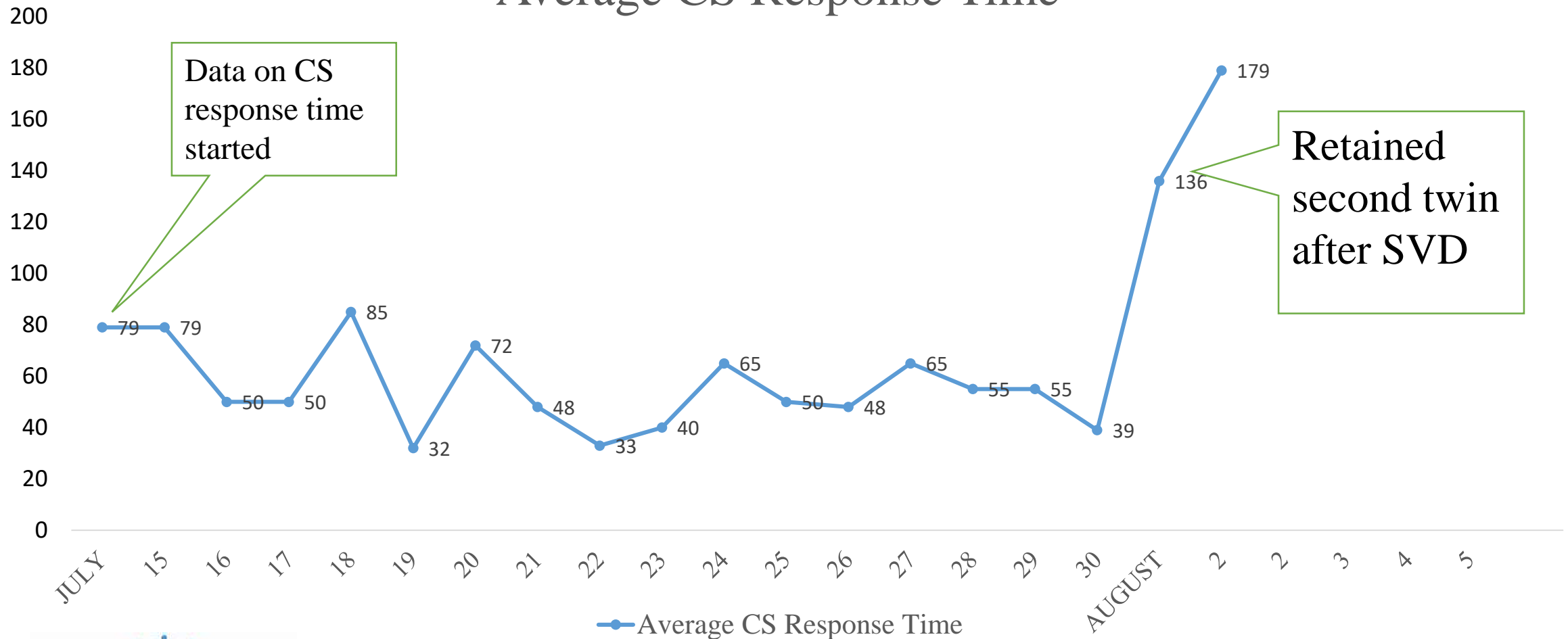
# Results/Key Findings- test period

## EDUCATION AT THE ANC



# Results/Key Findings- test period

## Average CS Response Time



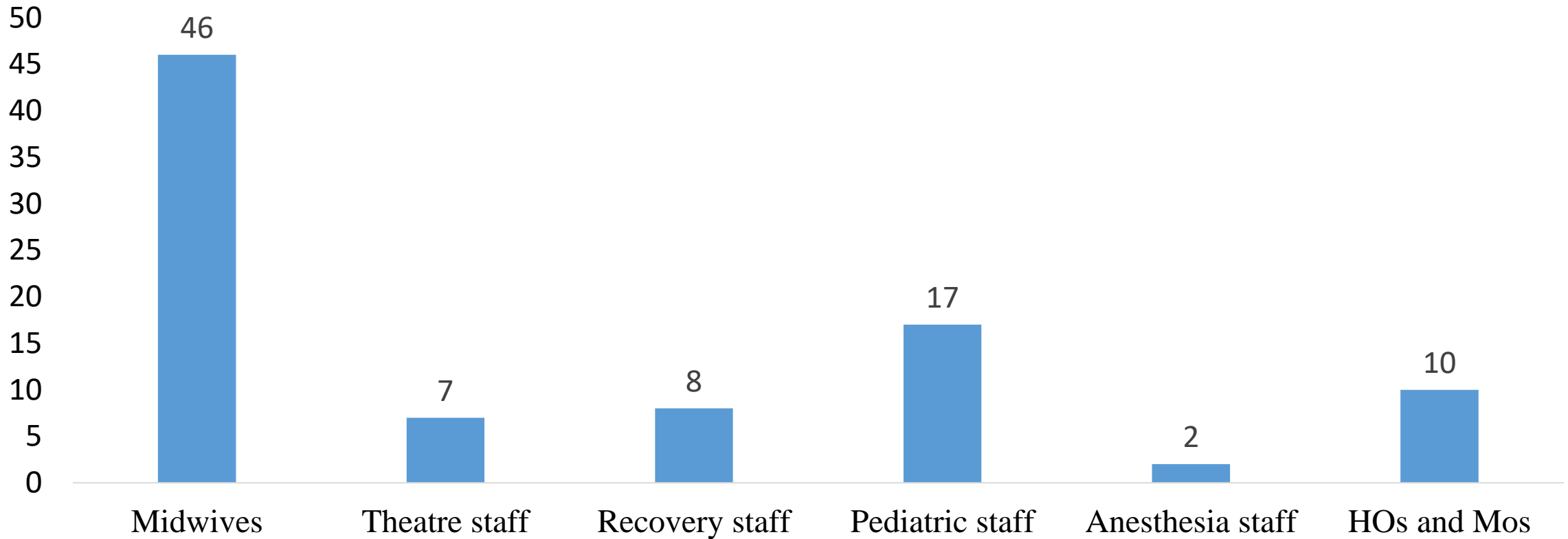
# Results/Key Findings- test period

<b>Variable (JUNE 2020 –JUNE 2021 )</b>	
Deliveries	1960
Total Asphyxia Cases	130
<b>Asphyxia /1000LB</b>	<b>63/1000LB</b>
<b>Variable (July 2021- August 2021)</b>	
Deliveries	219
Total Asphyxia Cases	9
<b>Asphyxia /1000LB</b>	<b>40.1/1000LB</b>

# PROGRESS MADE AFTER IMPLEMENTATION OF CHANGE IDEAS

# Results/Key Findings

Number Staff Trained on Neonatal Resuscitation (Sept - Dec 2021)

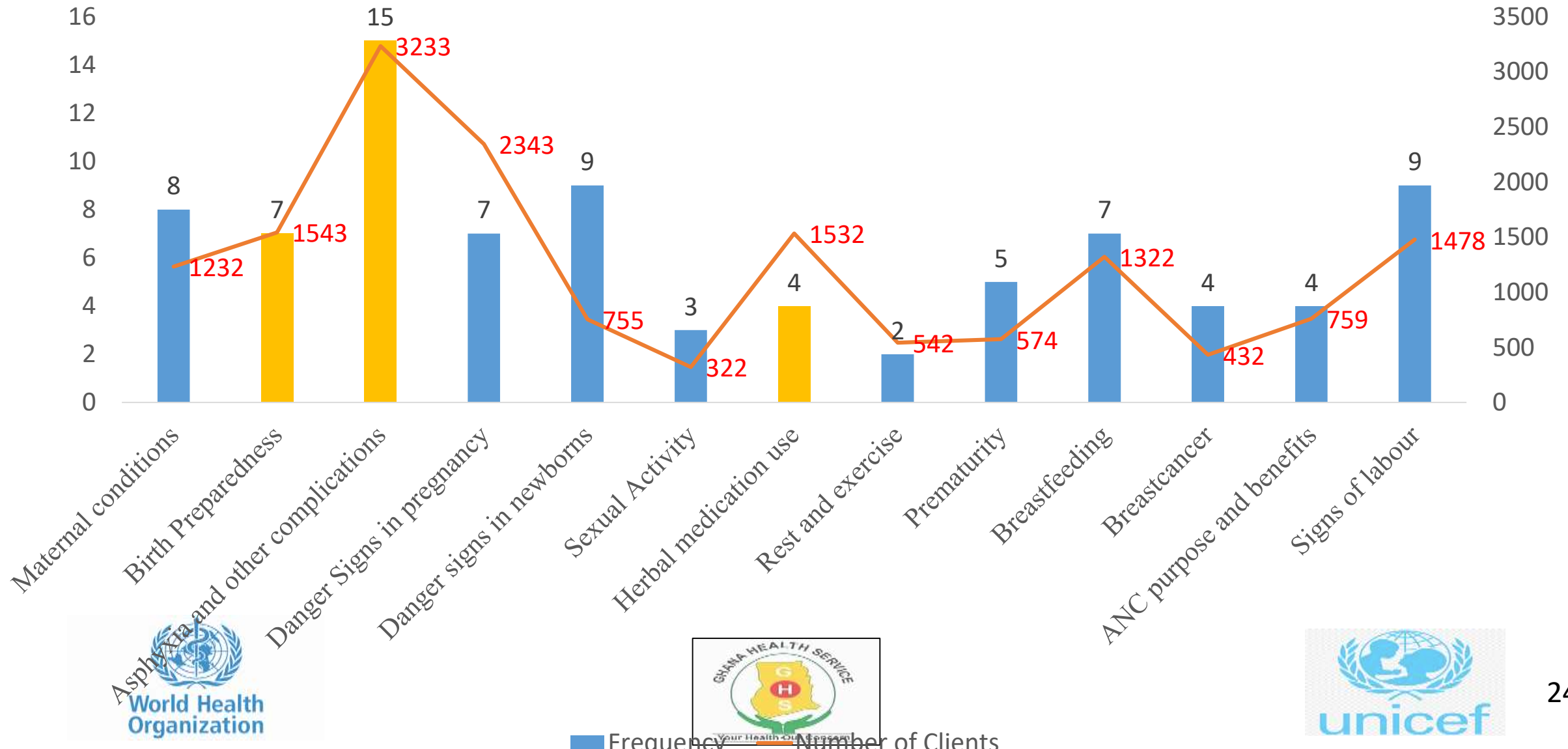


# Gallery



# Results/Key Findings

Topics and Number of Clients educated (Sep 2021 to June 2022)



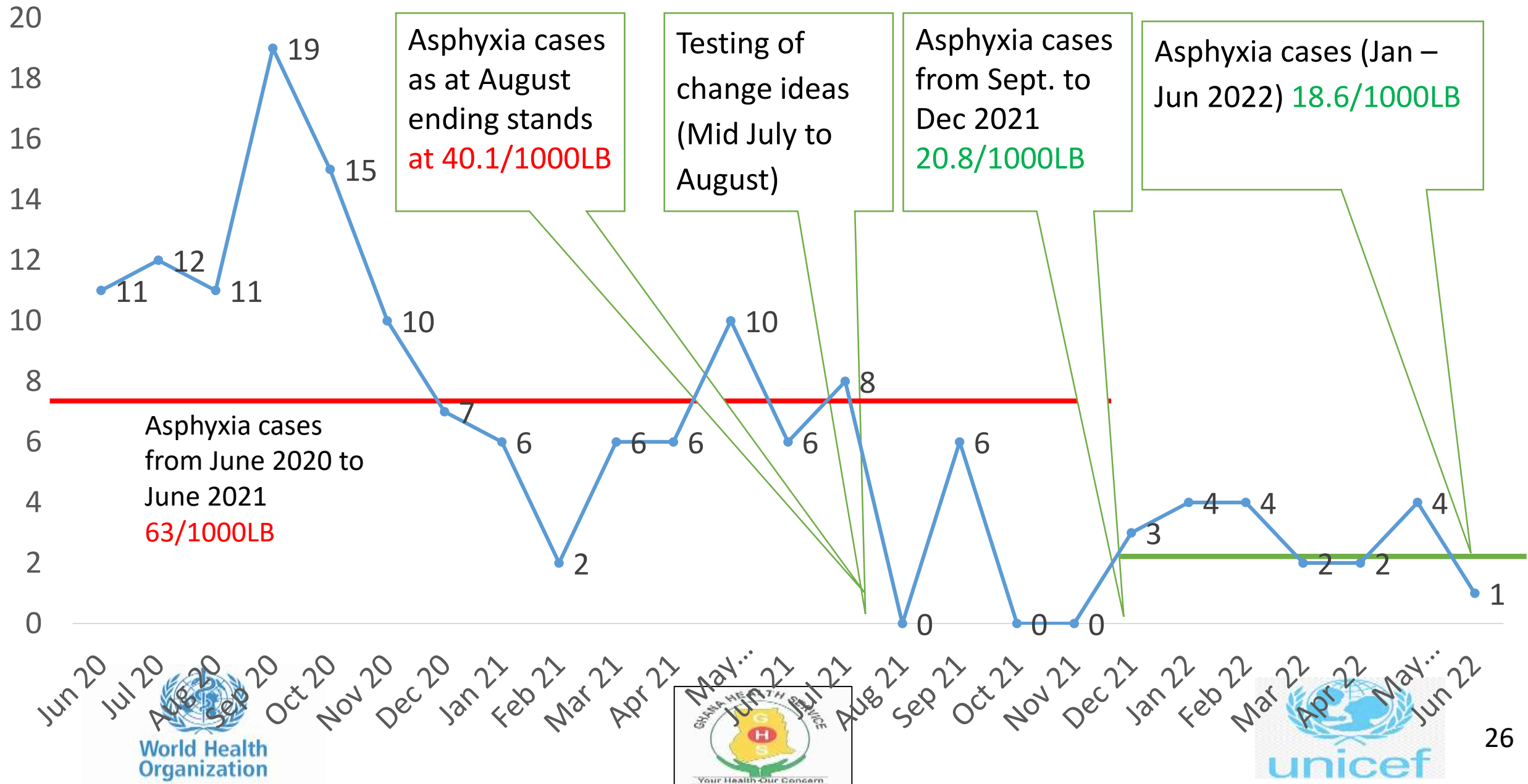
# Gallery Cont



World Health  
Organization



# Results/Key Findings On Asphyxia Cases



# Results/Key Findings

<b>Variable (JUNE 2020 –JUNE 2021)</b>	
Deliveries	1960
Total Asphyxia Cases	130
Asphyxia /1000LB	63/1000LB
<b>Variable (July 2021- August 2021)</b>	
Deliveries	219
Total Asphyxia Cases	9
Asphyxia /1000LB	40.1/1000LB
<b>Variable (SEPT. 2021- DEC 2021)</b>	
Deliveries	432
Total Asphyxia Cases (Moderate and Severe)	9
Asphyxia /1000LB	20.8/1000LB
<b>Variable (JAN. 2022- JUN 2022)</b>	
Deliveries	913
Total Asphyxia Cases (Moderate and Severe)	17
Asphyxia /1000LB	18.6/1000LB

# Audit On Asphyxia Cases And Possible Causes



World Health  
Organization



# Neonatal Mortality Jan- June 2022.

## Cause Of Death

Variable	
Total deaths over the period	8
Total deliveries over the period	913
Neonatal Mortality Rate	8.76/1000LB

DIAGNOSIS	NUMBER	%
Birth asphyxia and its complications	2	25
Prematurity and its complications	3	37.5
Neonatal sepsis and chemical pneumonitis	3	37.5

# Audit Conducted On Partographs

- Total of 45 partographs randomly selected from Jan- June 2022 audited

PARAMETER	%
CORRECTLY DONE	40 %
Incomplete recording of maternal blood pressure	33 %
Incomplete temperature recordings	40 %
No recording on urine output	35 %
Incomplete recording on FHR	29 %
Incorrect plotting of cervical dilatation, descent and contractions	55 %
Incomplete documentation on management of 4 <sup>th</sup> stage.	22 %

# Results/Key Findings STILL BIRTH- Jan -June

Year	2022
2020	1
2021	2
2022	2

# RESULTS FROM 2<sup>ND</sup> FACILITY ASSESSMENT USING THE WHO 9 STANDARDS OF CARE

# FIRST ASSESSMENT AGAINST SECOND ASSESSMENT

STANDARD	MEASURE	FIRST ASSESSMENT	SECOND ASSESSMENT
STANDARD 1	Evidenced based care is provided during labour and childbirth	50 %	79 %
STANDARD 2	Evidence based postnatal care is provided for all mothers and newborns	80 %	80 %
STANDARD 3	Human rights are observed and the experience of the care is dignified and respectful for every woman and newborn	42.9 %	64.3 %
STANDARD 4	A governance system is in place to support the provision of quality maternal and newborn care	16.6 %	66.7 %
STANDARD 5	Qualified and competent staff are available in adequate numbers to provide safe, consistent and quality maternal and newborns care	50 %	-
STANDARD 6	The physical environment of the health facility is safe for providing maternal and newborn care	28.6 %	43 %
STANDARD 7	Essential medications, supplies and functional equipment and diagnostic services are consistently available for maternal and newborn care	50 %	43 %
STANDARD 8		25 %	75 %
STANDARD 9	Standard 9: Health information systems are in place to manage patient clinical records and service data	25 %	75 %

# GALLERY



World Health  
Organization



unicef

# RESULTS ON POST NATAL EXIT INTERVIEWS

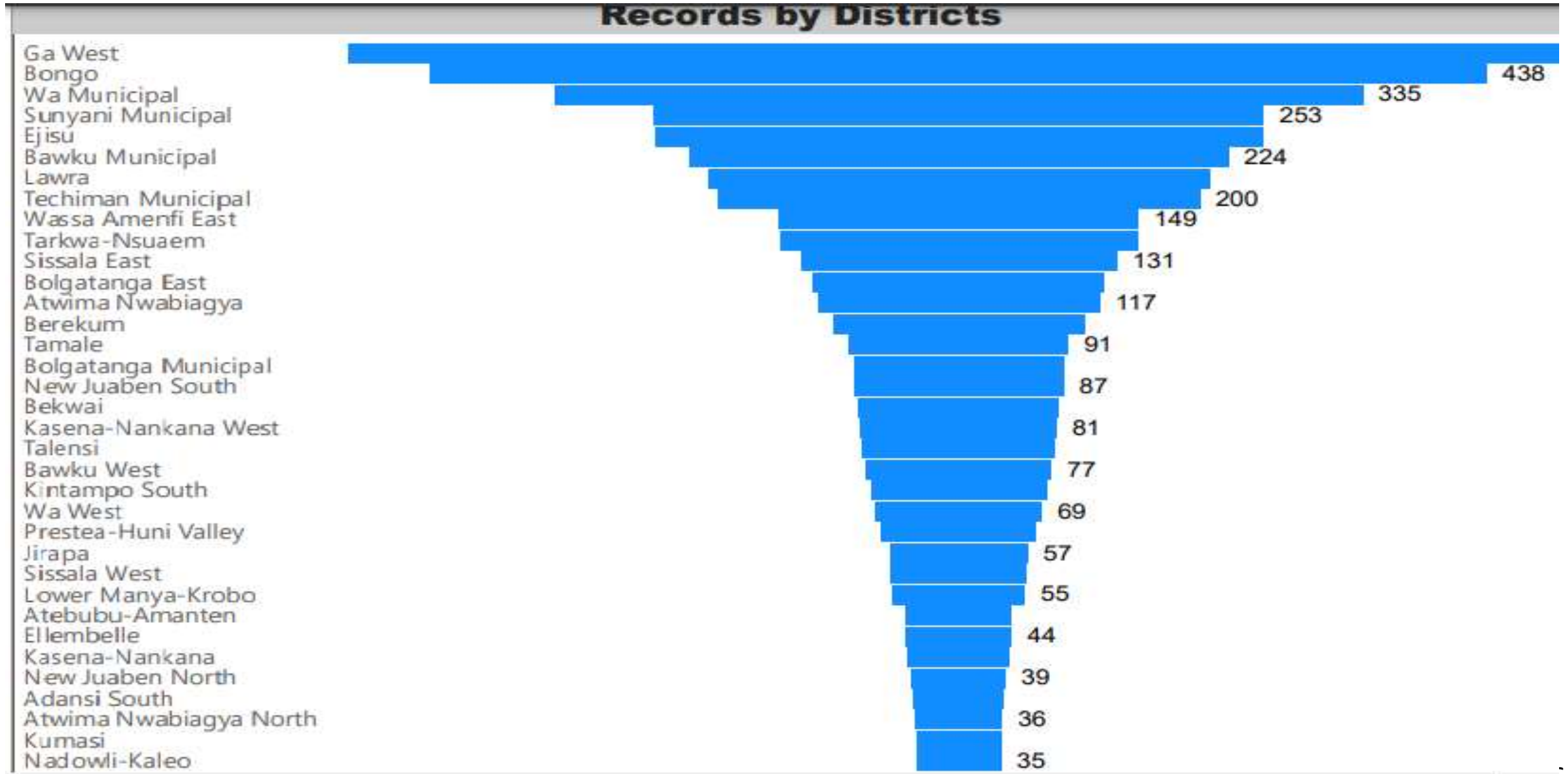


World Health  
Organization



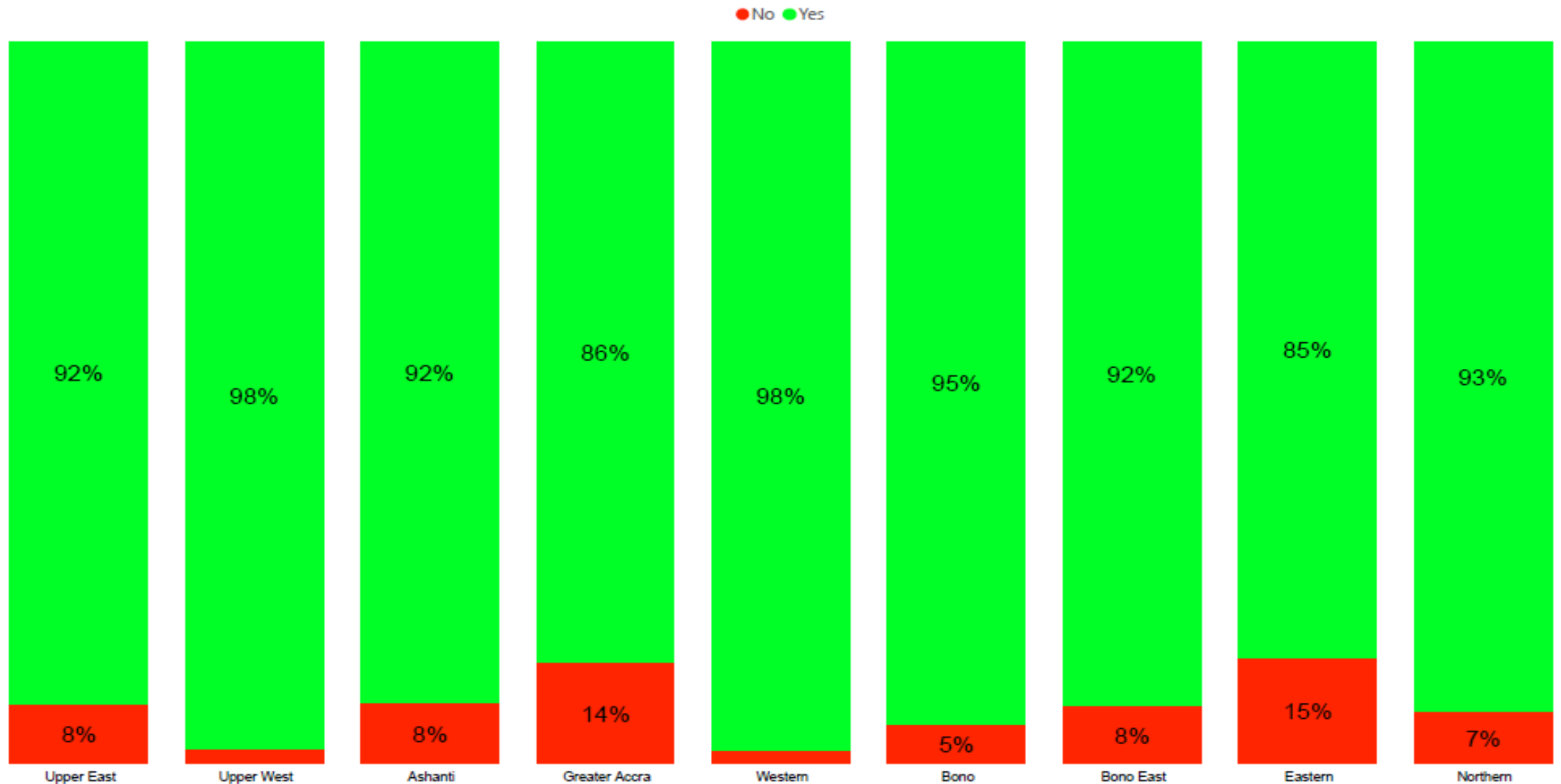
unicef

# PERFORMANCE OF FACILITY ON POST NATAL EXIT INTERVIEWS



# Post-natal exit interviews – cont'd

**Told danger signs you could develop yourself after childbirth**



# Post-natal exit interviews – word cloud

## Distribution of records submitted by health facility



# Way Forward.....

- Redefining our aim statement to reducing incidence of asphyxia from current 20.8/1000LB to 10.4/1000LB by 31<sup>st</sup> December, 2022
- Drills on NRT to be organized for the staff that were trained
- Assessment of the facility using the WHO 9 Quality of Care Standards quarterly
- We have started a new QI project on Malaria in the facility



# LIMITATIONS.....

Direct causality of asphyxia cases yet be established from the audits being conducted

Disparities in data in DHIMS and registers

Low deliveries in the month of Late October and November because of movement to new maternity block

# Conclusion

With team work, dedication and structured education to expectant mothers, adequate knowledge and skills among staff, birth asphyxia would not be a challenge to the facility, municipality, region and the country at large.



# THANK YOU



# QI TEAM MEMBERS

MADAM MERCY FORDJOUR

DR NANA YAA ASAAH ABOAGYE

DR JENNIFER ASAMAN

HANNA OCRAN

CHRISTIANA AYAMGA

AFIA FAAH-ARHIN

ADDAI MENSAH

PRISCILLA BAAFUOR DUROWAA



# Acknowledgements

- World Health Organization
- UNICEF
- GHS
- Regional Health Directorate
- Management, QI Team members, Staff at maternity and NICU - Sunyani Municipal Hospital

