



# An assessment on quality of UPHMIS through supportive supervision, Sitapur District, Uttar Pradesh

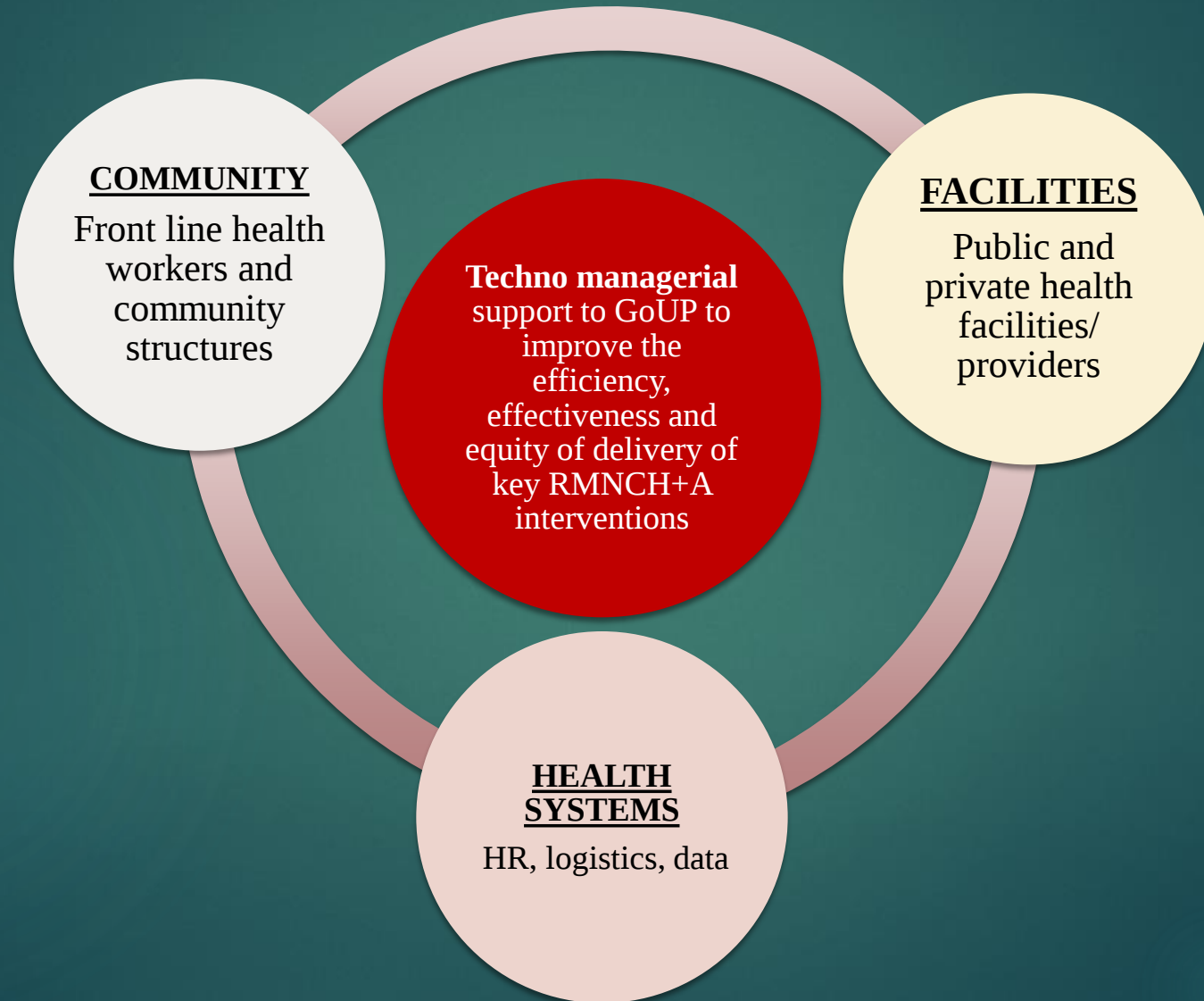
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# The Technical support unit (TSU) leverages three platforms to support the government at scale



# INTRODUCTION

- Technical Support Unit (TSU) rolled out in 100 blocks (4 blocks per district) for demonstration (2 with high and other 2 with lower proportion of institutional deliveries)
- Support the government of UP to diffuse/replicate/adapt beyond the 100 block Provide techno managerial support to government of UP to improve the efficiency, effectiveness and equity of delivery of key RMNCH+A intervention.

## **Strategy for data quality:**

- ❖ Analysis and use of HMIS, GOI SS, survey, and program monitoring
- ❖ Strengthening, analysis and use of UPHMIS
- ❖ Capacity building for Chief medical officer (CMO)/Additional chief medical officer(ACMO) and medical officer in charge (MOI/c).
- ❖ Supportive supervision

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## Supportive supervision for improvement of data quality:

### ➤ **Gap Identification**

- ❖ Community- ASHA Sangnini Mentor
- ❖ Facility- Nurse mentor

### ➤ **Problem Solving:**

- ❖ correct the data
- ❖ add additional column in record book
- ❖ the process of compiling the data by giving responsibility to individual person
- ❖ every SN, MOI/C, BPM, pharmacist, should have clarity on each data element.

### ➤ **Capacity building:**

- ❖ share the gaps with MOI/C

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- Identification of poor performing facility
- The poor performing block facilities is identified based on following data quality indicators selected for UPHMIS campaign
  - % of non-blank data element
  - % of non-zero data element
- 3 block facilities are selected from each of the 75 districts
- 1 DWH is selected by default from each of the district (Combined hospital if DWH is not available)

# RESEARCH QUESTION

- What are the factors that affect the quality of UPHMIS process and performance in Sitapur District, UP?

# OBJECTIVES

- To assess the quality of data being collected and entered in UPHMIS portal through matching with Supportive supervision round 1 and round 2.
- To assess the effectiveness of round 2 in comparison to round 1 Supportive supervision.
- To identify underlying causes of data errors in UPHMIS format by SWOT analysis.

# METHODOLOGY

- **Study Setting:** Supportive Supervision is conducted in 4 Blocks of Sitapur District in Uttar Pradesh
- **Study and design Sample:** Study is descriptive and 25 high priority districts are selected by GOI through composite score and after that 4 TSU blocks are selected from each 25 districts which is poor in health indicators.
- **Inclusion Criteria:** 4 blocks are Technical support unit blocks (TSU) which was decided by the state according to performance and poor health indicators (ANC registration, 4 ANC visits, full immunization, institutional deliveries etc.).

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- **Data Collection tool:** Checklist has been prepared by the state and match the data from the facilities. Checklist include human resource, training of staff, HMIS (Institutional delivery, still birth, full ANC checkup, PPIUCD, allopathic OPD, full immunization, etc.), Under-5 OPD & IPD data and JSSK.
- **Data Analysis:** SWOT and data Analysis is done in STATA software and Excel. From SWOT analysis, after reading articles and thorough observation in the field, I mentioned factors which are responsible for quality of data and in data analysis. Matching status is shows which indicators are matched and has improved the performance in round 2 supportive supervision.

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- For 1<sup>st</sup> & 2<sup>nd</sup> objective:

Through matching and analysing the supportive supervision round 1 & 2 to find the variation of data and outliers

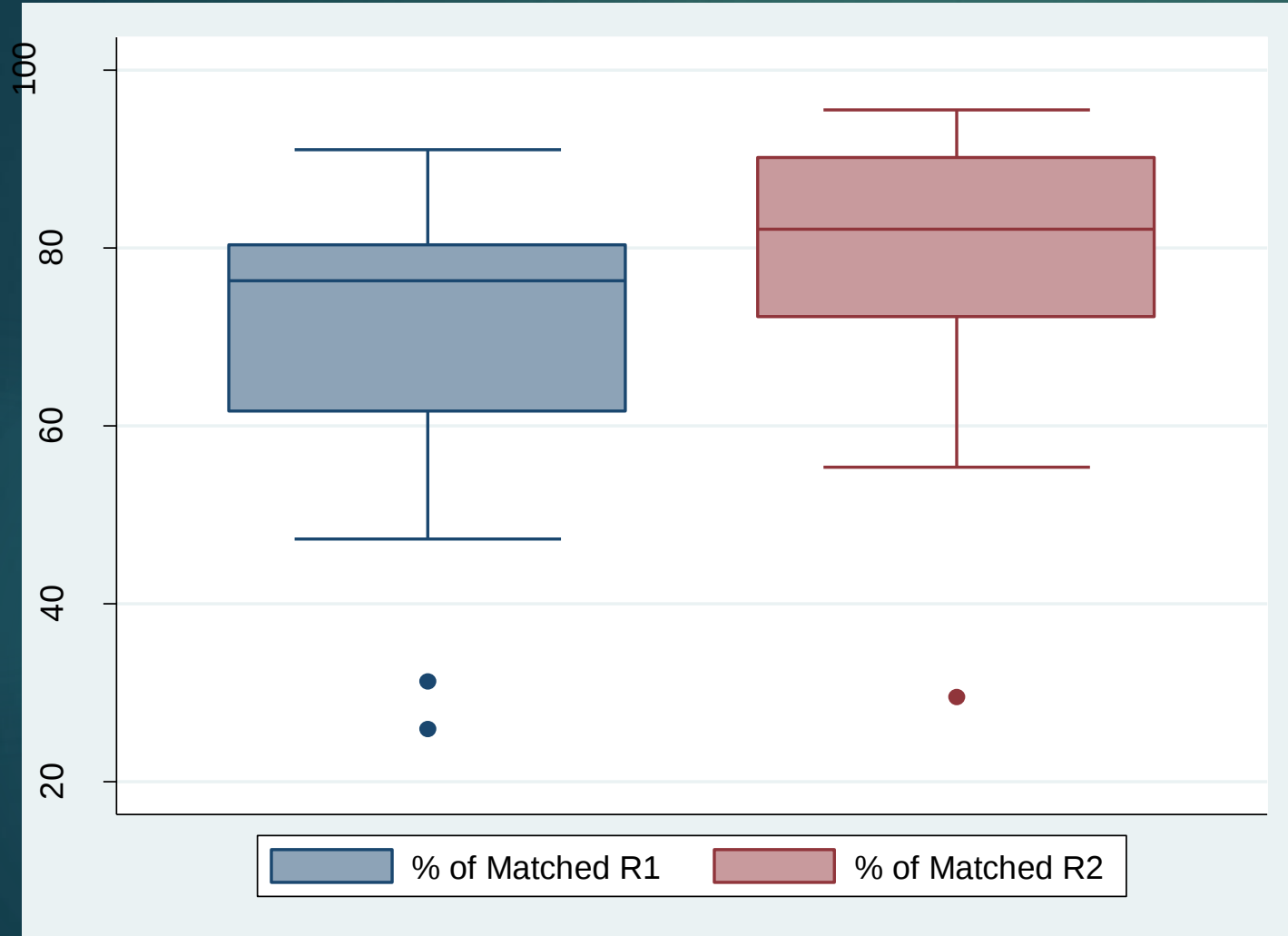
- For 3<sup>rd</sup> objective:

Thorough SWOT analysis, strength, weakness of medical officer in charge (MOI/c), block program manager (BPM), BCPM, ARO, staff nurse, Pharmacist, Lab technician.

# 1. To assess the quality of data being collected and entered in UPHMIS portal through matching with Supportive supervision round 1 and round 2.

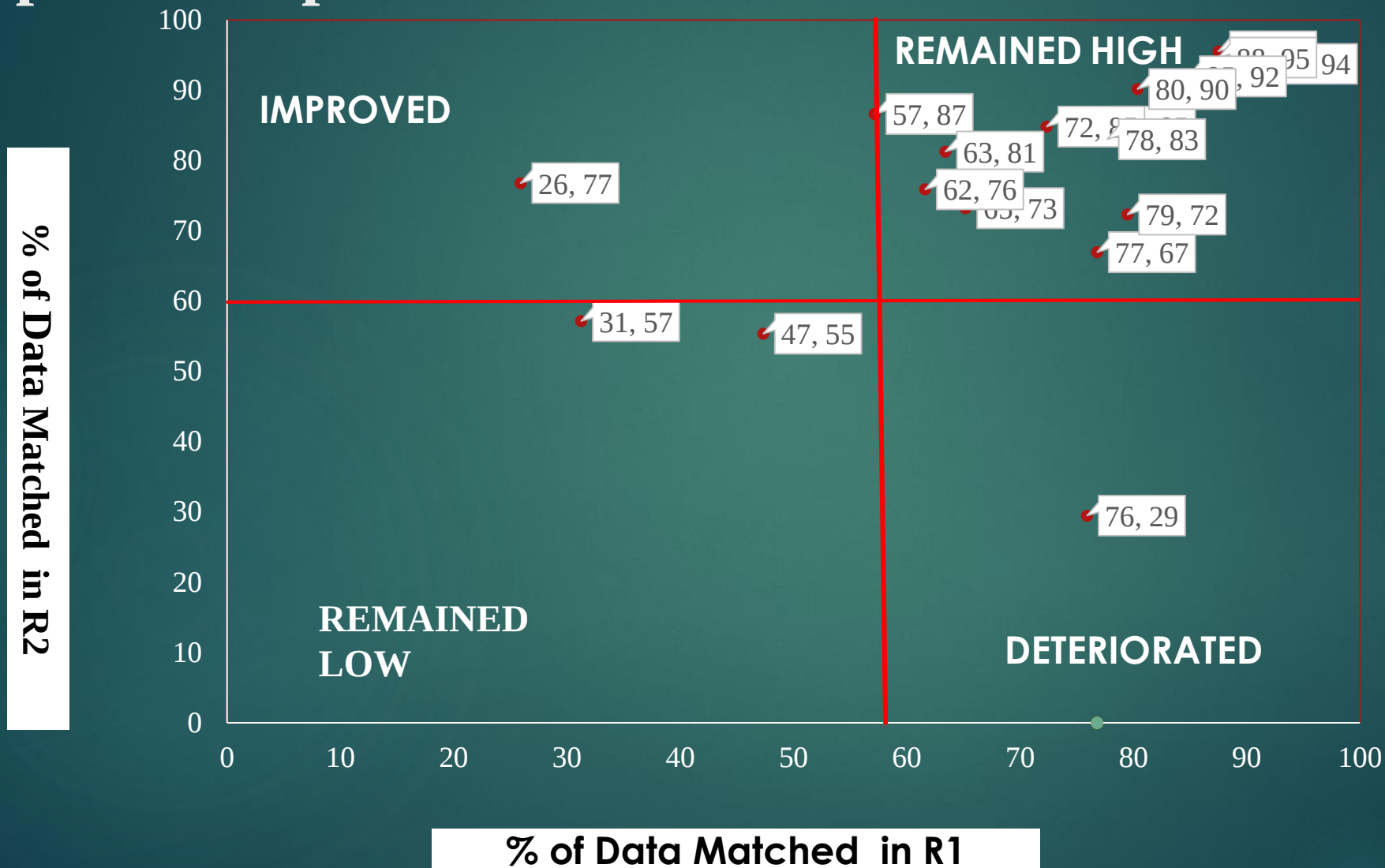
| DISTRICT        | FACILITY                | % OF DATA MATCHED IN ROUND 1 | % OF DATA MATCHED IN ROUND 2 |
|-----------------|-------------------------|------------------------------|------------------------------|
| Bahraich        | BPHC Shivpur            | 76.79                        | 84.82                        |
| Bahraich        | BPHC Chittaura          | 31.25                        | 57.14                        |
| Bahraich        | BPHC Mahsi              | 25.89                        | 76.79                        |
| Bahraich        | BCHC Motipur Mihinpurwa | 57.14                        | 86.61                        |
| Barabanki       | BCHC Jatabarauli        | 87.50                        | 95.54                        |
| Barabanki       | CHC Ghunghter           | 91.07                        | 93.75                        |
| Barabanki       | BCHC Sirauligaupur      | 72.32                        | 84.82                        |
| Faizabad        | BCHC Bikapur            | 75.89                        | 29.46                        |
| Faizabad        | BCHC Rudauli            | 65.18                        | 73.21                        |
| Faizabad        | BPHC Masaudha           | 76.79                        | 66.96                        |
| Faizabad        | BCHC Sohawal            | 87.50                        | 94.64                        |
| Lakhimpur Kheri | PHC Isa Nagar           | 63.39                        | 81.25                        |
| Lakhimpur Kheri | CHC Phardhan            | 61.61                        | 75.89                        |
| Lakhimpur Kheri | BPHC Phool Behar        | 47.32                        | 55.36                        |
| Sitapur         | BCHC Behta              | 77.68                        | 83.04                        |
| Sitapur         | BCHC Khairabad          | 79.46                        | 72.32                        |
| Sitapur         | BCHC Biswan             | 84.82                        | 91.96                        |
| Sitapur         | BCHC Mahmoodabad        | 80.36                        | 90.18                        |

# Box Plot



Box plot shows variation between round 1 and round 2 can be seen. In round 2 variation of data is reduced because of this outlier is less.

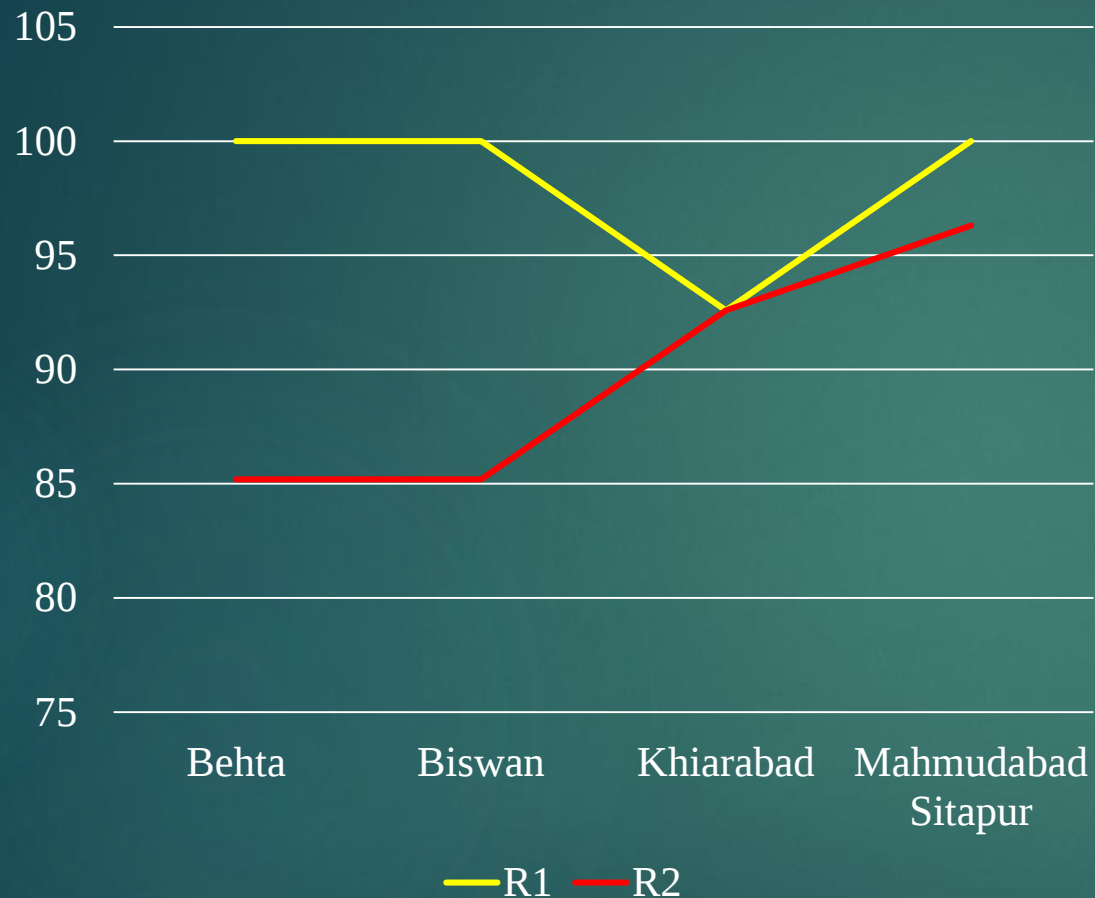
# Positioning of block according to round 1 and round 2 supportive supervision



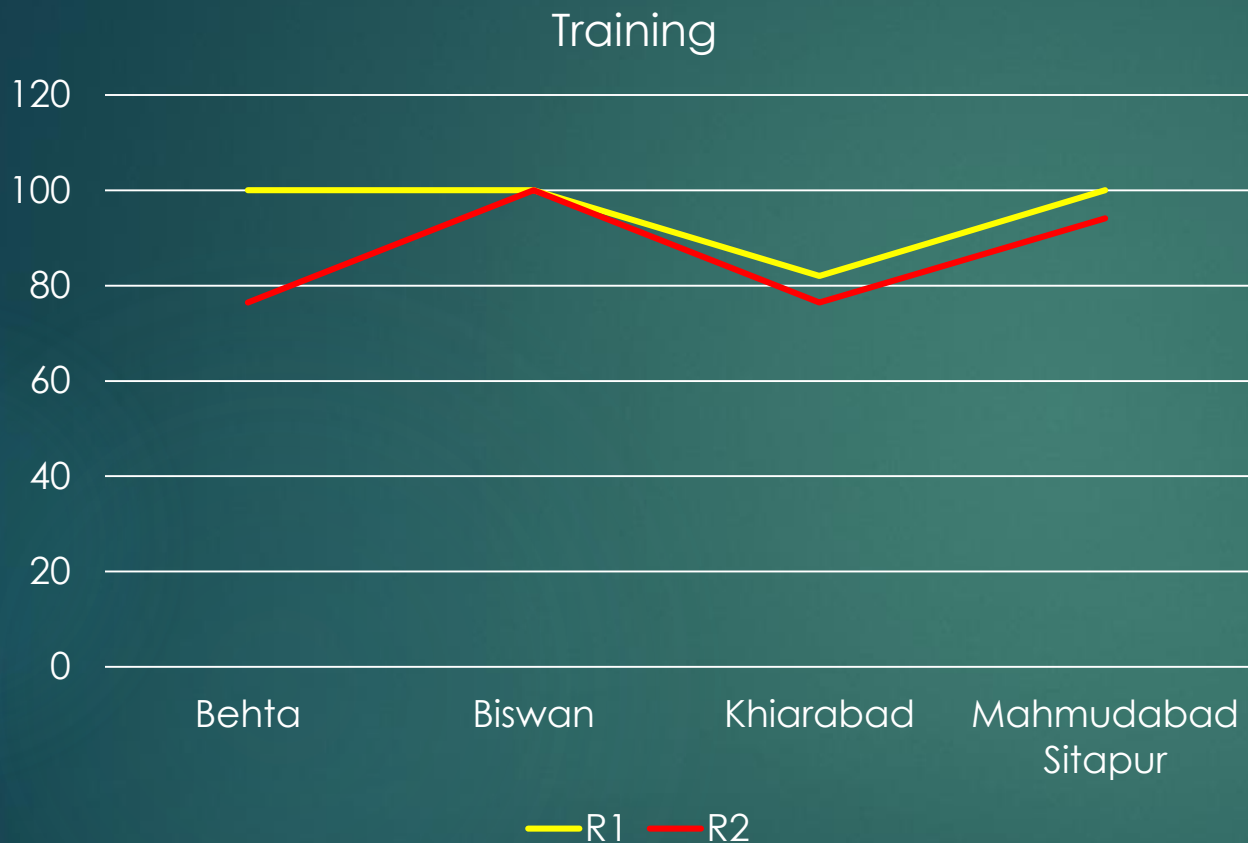
## 2. To assess the effectiveness in round 2 after round 1 Supportive supervision thorough analysis.

| Block/<br>Elements    | Human<br>Resource | Training | Drugs and<br>(Availability) Supply | HMIS | Child<br>Health | JSSK |
|-----------------------|-------------------|----------|------------------------------------|------|-----------------|------|
| Khیارabad             | 93                | 76       | 43                                 | 72   | 82              | 92   |
| Mahmudabad<br>Sitapur | 96                | 94       | 91                                 | 72   | 100             | 100  |
| Biswan                | 85                | 100      | 91                                 | 94   | 100             | 100  |
| Behta                 | 85                | 76       | 74                                 | 100  | 91              | 100  |

## Human Resource



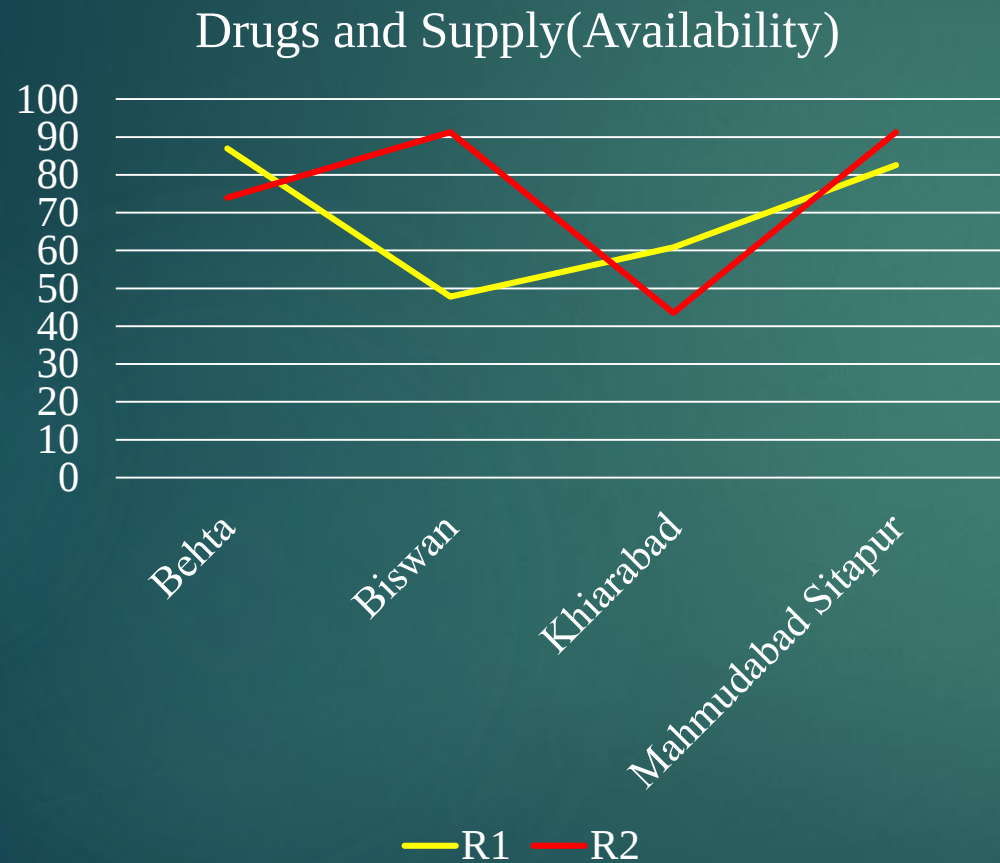
Graph shows percentage matched in R1 and R2. Less percentage matched in round 2, as the doctor is present in CHC on contractual basis but haven't shown on portal. Most of the MOI/c have confusion whether contractual doctors should be recorded on the attendance basis or on payment basis. In most of the CHC electronic system has been started so most of them don't have source documents for the attendance register. Because of this they are not able to show the source document of attendance register during SS visit.



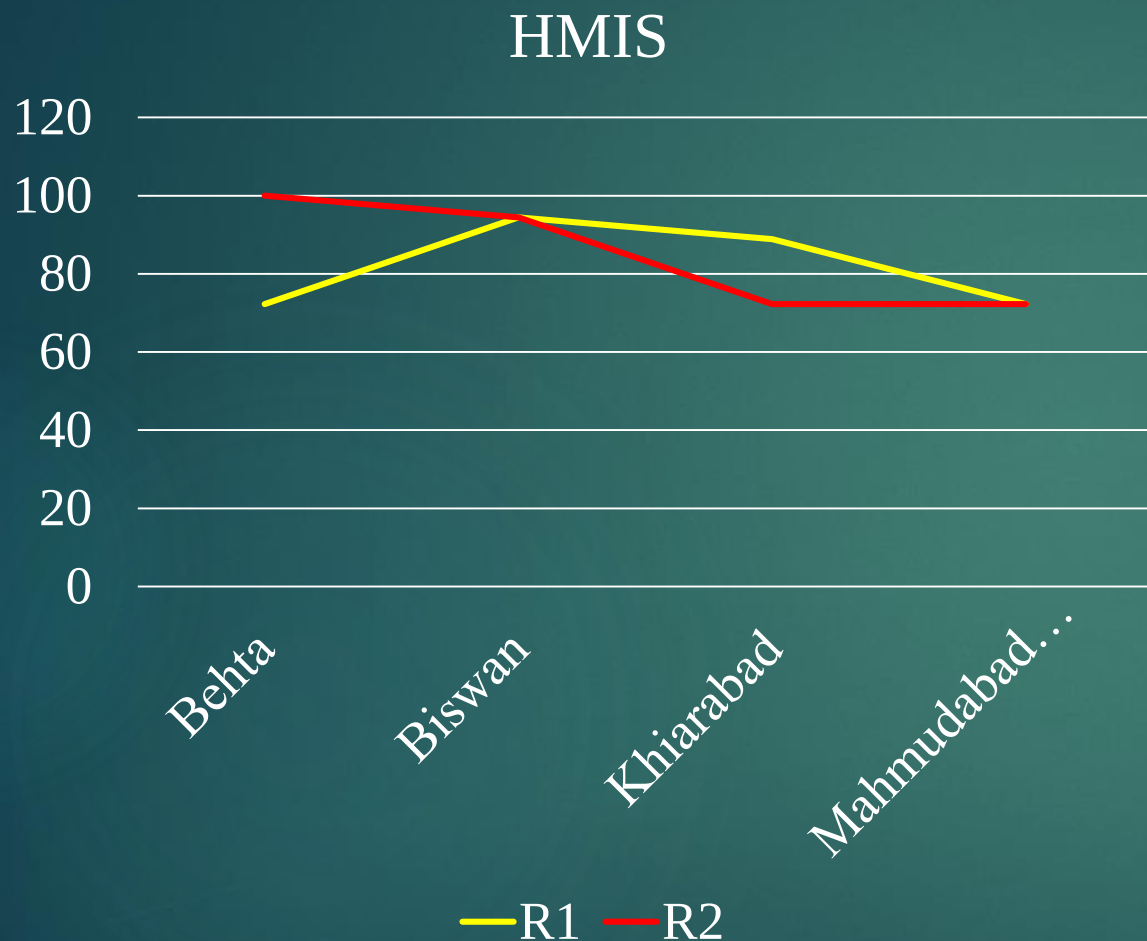
Graph shows percentage matched in R1 and R2. Less percentage matched in round 2 due to wrong data of training in register in CHC Behta, Khairabad and Mahmudabad.

Total no of staff and total staff trained not matched, they need to update the information in register.

Trained not matched, they need to update the information in register.

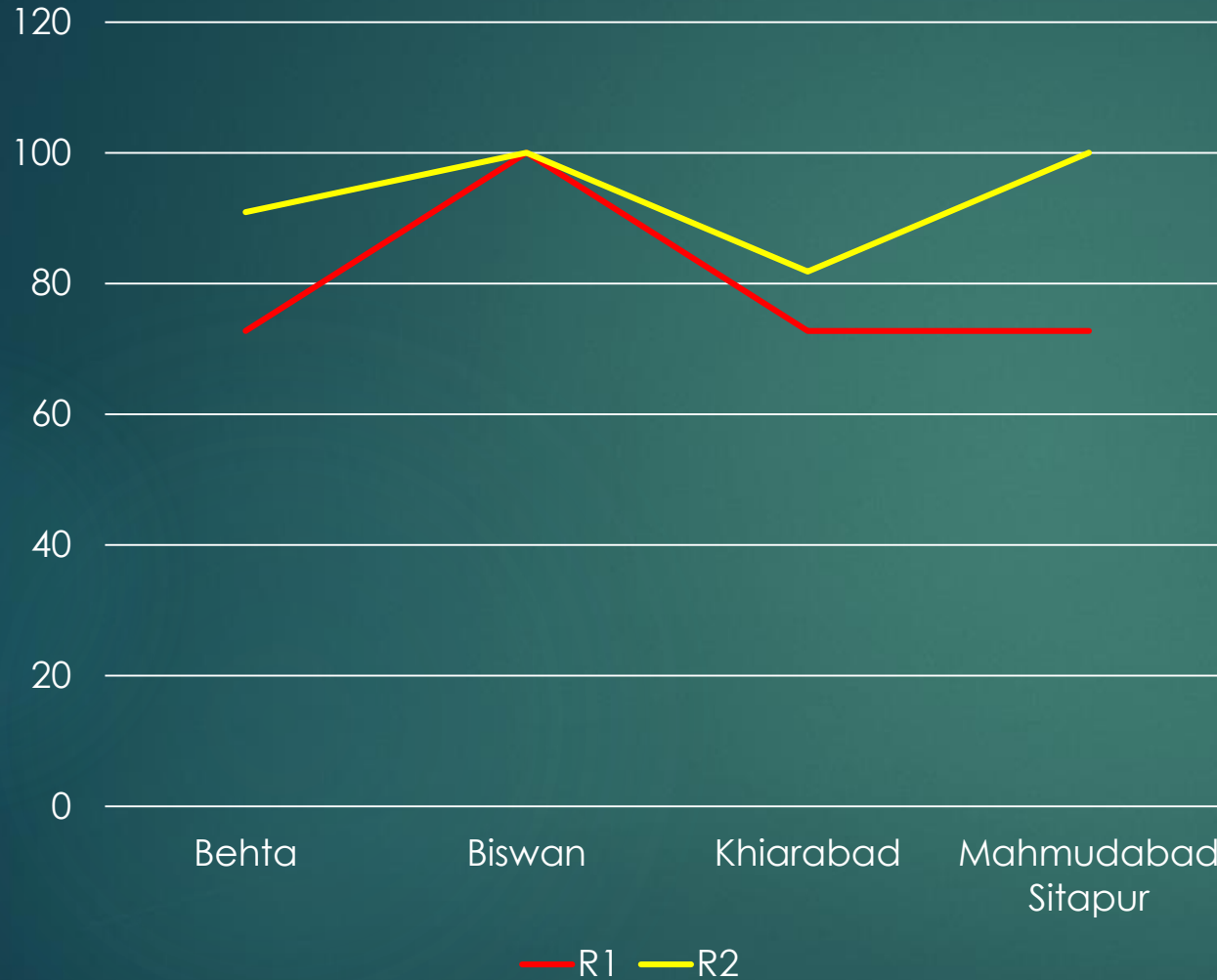


Graph shows percentage matched in R1 and R2. Less percentage matched in Biswan in drug and supply. Pharmacist get confused and he didn't enter the closing balance of stock in UPHMIS and they have mentioned adequate in HMIS data but when matched with source register it showed inadequate.



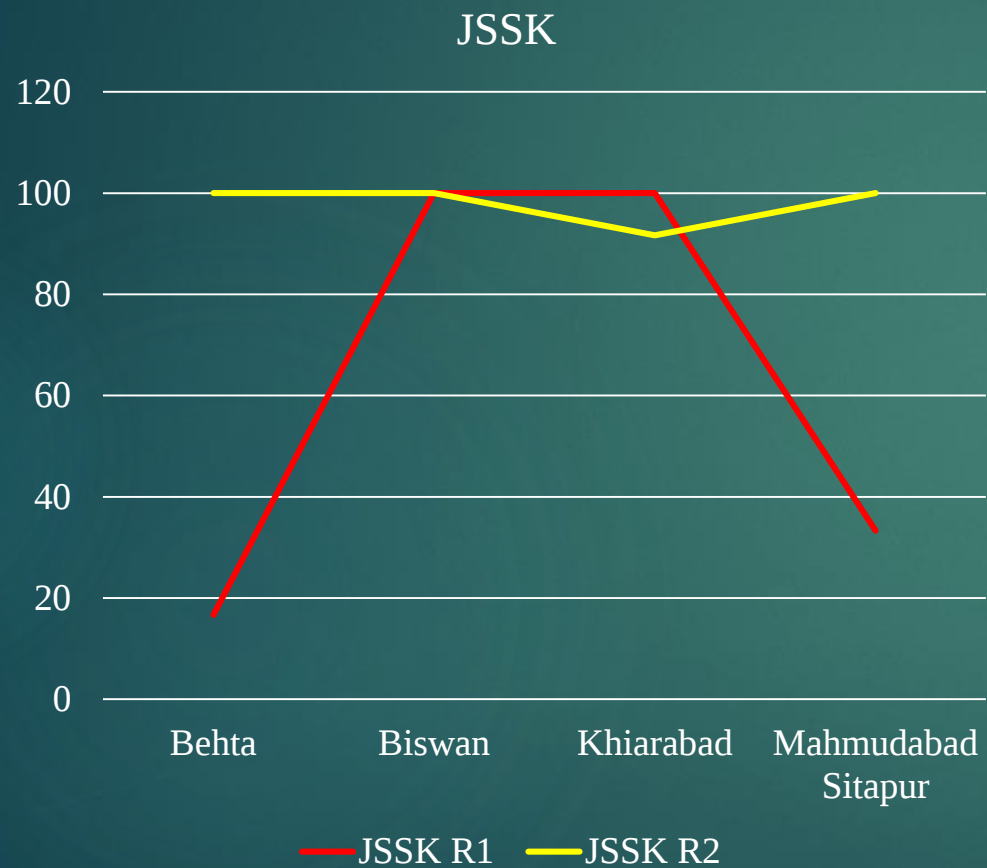
Graph shows percentage matched in R1 and R2. Less percentage matched in Khairabad as nodal staff nurse was absent during the reporting and data collected by Block program manager was wrong and didn't matched with the source document during visit. In Biswan staff nurse has started mentioning summary at the end, so that in the absence of staff anyone can easily collect data from Labour register, but ANC register is still a major concern as it is not maintained at facility.

## Child Health



Graph shows percentage matched in R1 and R2. Improvement has shown in reporting of Under-5 outpatient and inpatient children.

MOI/c has now started separating the U-5 child data from total OPD and IPD and also they are giving data of pneumonia and diarrhoea cases.



Graph shows percentage matched in R1 and R2. In JSSK we can see the drastic changes in data. As staff nurse has started maintaining the diet and drop back register, but still drugs and consumables data is reported low and source register for drugs under JSSK is hard to find.

### 3. To identify underlying causes of data errors in UPHMIS by SWOT analysis:

#### **INTERNAL FACTORS – STRENGTHS IDENTIFIED**

**Human Resource available**

**Policy in existence, governing HMIS**

**Decrease in data and medical errors**

**Documentation and Source register**

**Better and improved reporting from few months**

**Trained Nurse mentor improved source register  
that reduces the possible causes of data loss**

**Functional IT infrastructure**

#### **INTERNAL FACTORS – WEAKNESSES IDENTIFIED**

**Shortage of competent staff**

**Lack of skills and not maintain source registers in  
Staff nurse, Pharmacist, Lab Technician**

**Definition not clear to each stakeholder**

**Lack of flow of communication in hierarchy**

**Lack of accountability and transparency**

**Lack of interest and professional in learning new  
systems**

**MOI/c are poor in defining the indicators in  
validation meeting**

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## **EXTERNAL FACTORS – OPPORTUNITIES IDENTIFIED**

**Completeness of UPHMIS format**

**Improvement in data reporting and entering on time**

**Training programs and facilities**

**consolidation of health records**

**Validation meeting after data reporting between staff**

**Continuous use of information and improving data quality**

**Motivating and Improving element knowledge  
SN, Pharmacist, LT, BPM**

## **EXTERNAL FACTORS – THREATS IDENTIFIED**

**Manipulation of data**

**Not taking responsibility to fill the format**

**Poor governance**

**Transfer of competent staff**

**Changes is not easily acceptable by stakeholder**

# CONCLUSION

- Shortage of competent staff, unavailability of JSSK register (diet, drop back, 102 and 108, Stock register, U-5 child (OPD & IPD) register, lack of adequate training of staff, and no validation after data collection and summary was not found in labour and referred registered.
- In second round 14 blocks shows >70% improvement.

Data variation and outliers can be reduce if nodal officers are trained by DME.