USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM
Procurement and Supply Management

Improving Laboratory Performance Through KPI Management of Service-Level Agreements: PEPFAR's Journey to a More Effective and Efficient HIV VL/EID Supply Chain

October 3, 2024

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Agenda

1. Objectives of the Session and Background

2. Introduction to KPI Management
   - Objectives and Approach
   - What KPIs to use for managing diagnostics suppliers' performance?
   - Who should be involved in a KPI process?
   - KPI management cycle
3. Impact of effective KPI management
   - Zambia Case Study
4. Next steps and upcoming sessions for the ASLM Lab CoP

Objectives of today's session

- To share GHSC-PSM experience on introducing a process for managing performance of diagnostics suppliers under PEPFAR's global SLAs.
- To provide practical insights on what areas of performance KPIs should cover, how to structure and manage the process, and key steps in the KPI process cycle
- To explain how a country can effectively implement KPI management for impact, using case studies from a PEPFAR country
- Help you understand how to accelerate KPI adoption for performance management of your diagnostic suppliers and distribution partners.

Background

- Improving price transparency, service performance and market health has been key to PEPFAR's efforts to transform molecular laboratory testing and provide cost effective services for better health outcomes.
- Through two waves of global viral load (VL) and early infant diagnosis (EID) RFPs in 2019 and 2022, GHSC-PSM project, acting on behalf of PEPFAR, established all-inclusive pricing and services for high-throughput, lab-based HIV VL/EID testing in all PEPFAR-supported countries.
- This all-inclusive reagent rental approach is implemented through global service-level agreements (SLAs) with three major global manufacturers (Abbott, Hologic and Roche).
- SLAs cover procurement of reagents and consumables to conduct VL/EID tests; diagnostic instrument lease, installation, and removal; user training; maintenance of instruments; supply chain services; and instrument remote connectivity and data reporting.

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Approach to the KPI Management under SLAs

- Benefits of PEPFAR's global SLAs include standardization of services and contract terms across countries and suppliers; standardized evaluation criteria by which the buyer can assess the performance of the vendor, and harmonized mechanisms to manage suppliers' performance; and potential savings.
- SLAs are only as effective as they are monitored and managed against established service levels, hence the need for the KPI management process.
- GHSC-PSM designed a systematic approach and work instructions for KPI management, covering suppliers' KPI reporting, performance management of suppliers, collaborative remediation of deficiencies in a supplier's performance, and management of communication pertaining to KPIs.
- KPI data tracking can facilitate a country's decision-making on annual volume allocations to each supplier and inform changes in suppliers' mix, especially when poor performance without remediation is continuously experienced.

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These 10 standard KPIs are used by GHSC-PSM for performance management under global SLAs for **all suppliers** and **all countries**

1. Preventative Maintenance Visit Reports
2. Response Time Report
3. Repair Time Report
4. Instrument Outages Report
5. Instrument Uptime Report
6. Failure Rate Report*
7. Transmission Uptime Report*
8. Shelf-Life Reports
9. Reporting Rate Report
10. On-Time, In Full Delivery Report

* Possible to enable real-time monitoring

Under GHSC-PSM's SLAs with suppliers, each KPI is clearly defined, with established target and reporting frequency

Category		Indicator definition	Standard Target	Reporting Frequency
Maintenance, insurance, and ongoing end user training	1	Percentage of machines that are serviced with 2 preventative maintenance visits per contract year	100%	Yearly
	2	Mean time to response for equipment breakdown: time lapsed from when issue was first reported to the when a follow-up plan is communicated to the customer	24 hours	Quarterly
	3	Mean time to repair- average # of business days lapsed from the issue was first reported supplier to job completion	≤ 5 days	Quarterly
	4	Percent of instruments that experience no outages which occur less than 3 months after any scheduled / unscheduled maintenance work	100%	Quarterly
	5	Percentage of machines that are operational >85% of days each quarter	100%	Monthly
	6	Average percentage of failed tests due to machine error	<5%	Monthly
Connectivity/ reporting	7	Average percentage "uptime" of automated reporting system	>95%	Quarterly
	9	Percentage of Quarterly Reports submitted on-time per the terms of the subcontract	100%	Yearly
Commodity supply chain management	8	Percentage of batches with committed goods available date (C.GAD) in the period that comply with the shelf life terms in the Basic Ordering Agreement (BOA)	100%	Quarterly
	10	Percentage of line items delivered in full and on time. In-full is measured against agreed ordered quantities. On-time is defined based on incoterm as either 7 days prior/3 days after or 14 days prior/7 days after the current committed goods available date	>90%	Quarterly

These KPIs represent minimum standards of quality services. Other KPIs can be added to SLAs, if a country or stakeholder require them for their programs.
Suppliers are contractually obligated to meet these KPIs and will be monitored regularly

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KPI management is a collaborative process where each stakeholder has distinct responsibilities

Country ownership through MOH is critical for effective and accountable KPI management

Supplier In-Country Representative	Manages its service provider and is responsible for following through with the contractual scope of work for the SLA. Also responsible for generating and distributing required KPI reports. Participates in the quarterly performance review meetings to remedy performance deficiencies when necessary
Country Representative (TWG or MOH)	Manages the relationship between the Supplier In-Country Representative, laboratories, SLA contract manager, and country stakeholders including government representatives and key partners. Also responsible for collecting and validating KPI reports, coordinating quarterly review meetings, and facilitating/implementing performance remediation plans when necessary
Lab Data Specialist	Responsible for KPI data storage and continuous improvement of data quality assurance. Manages necessary dashboards on a day-to-day basis
Country's SLA contract manager / program manager	Responsible for managing contract terms and business reviews with suppliers, communicates KPI data for contract renewals, and participates in supplier evaluations. The Manager also provides guidance to other in-country stakeholders how to remedy supplier performance deficiencies, per negotiated contract terms

These roles can be separated or carried out by the same group of people and are vital in maintaining a smooth management process

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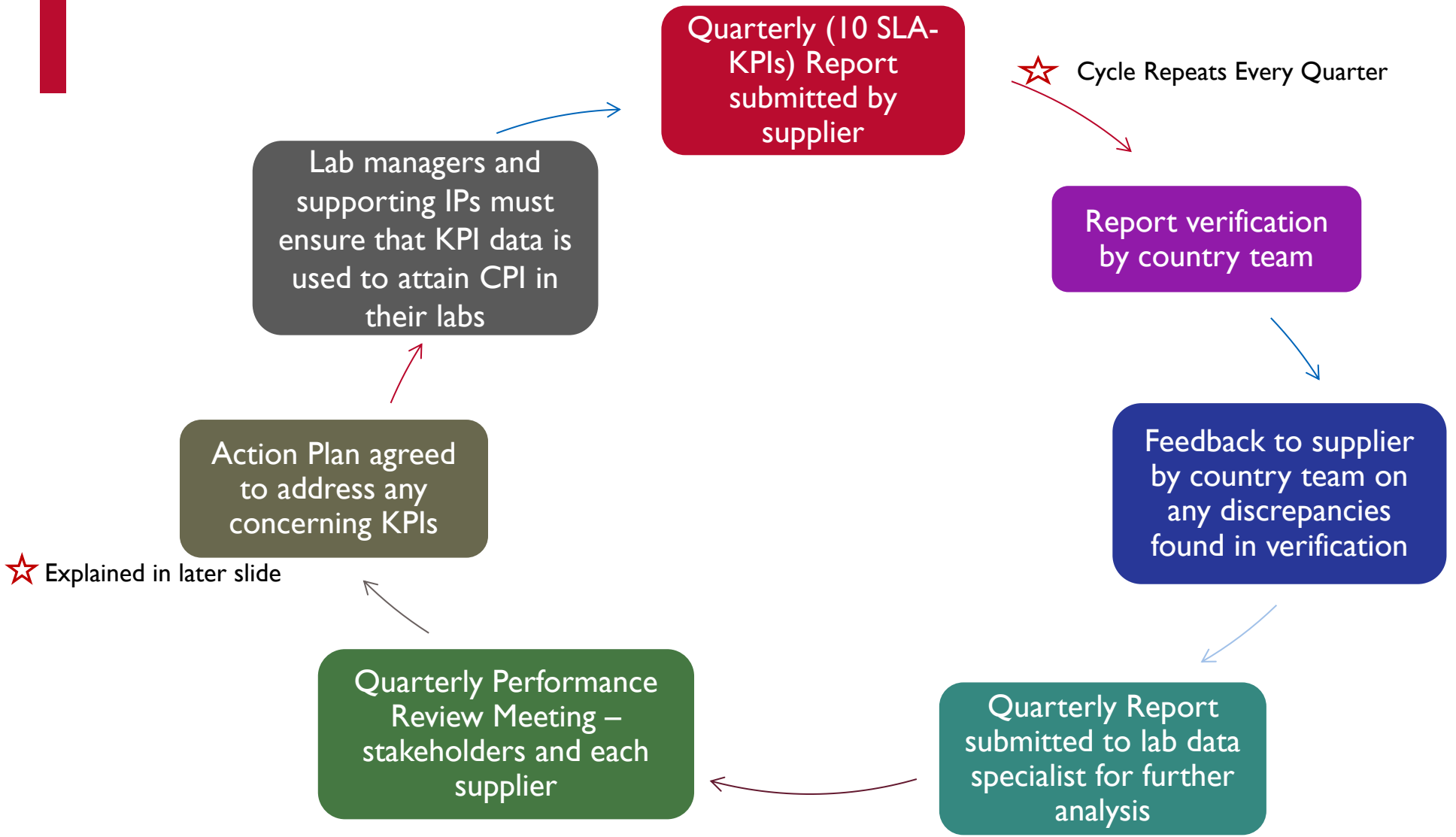
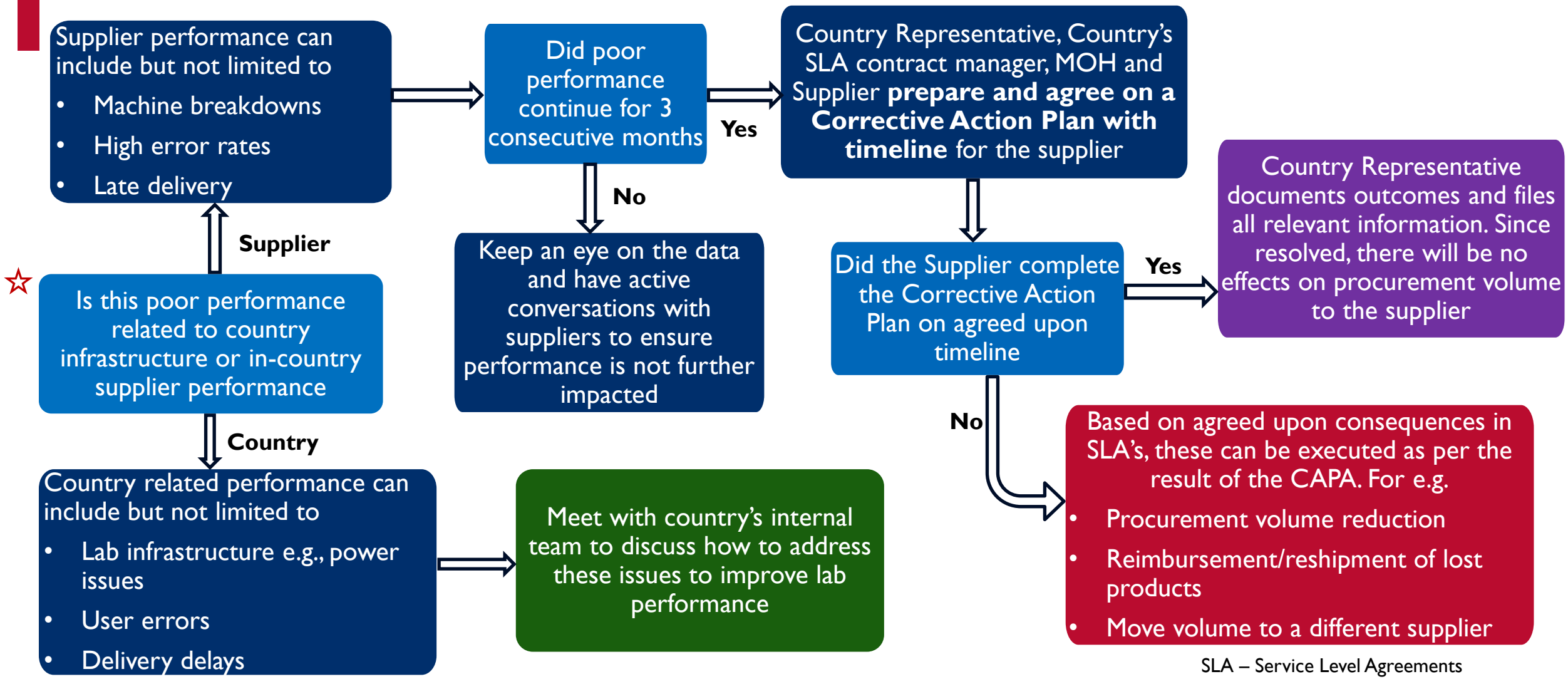
KPI Management Cycle & Performance Management Process



IP – Implementing Partners
CPI – Continuous Performance Improvement

How can supplier's poor performance against KPI targets be addressed under an SLA?



SLA – Service Level Agreements
CAPA – Corrective and Preventative Action

How can supplier's poor performance against KPI targets be addressed under an SLA?

- **If a KPI fails multiple times, you will need to create a contingency plan to resolve any issues**. This is something you will discuss with your vendor and should be agreed on before implementation. Most issues have common solutions but if a KPI has failed multiple times and your vendor is unresponsive to your performance improvement plan, this is where you can introduce consequences of KPI failure
    - For example, multiple unresolved machine failures throughout the year can result in high failure rates and wasted tests. If they continue to be unresolved a natural consequence can be acquiring fewer tests for those machines that are unreliable
- Under GHSC-PSM's global SLAs, if performance targets **are not met in a given KPI reporting** period, the supplier shall investigate and address the causes of non-performance. If performance targets are not met by a material amount for three (3) consecutive monthly KPI Reporting Forms or in one quarterly KPI Reporting Form for any metric reported quarterly, the supplier, in partnership with a designated in-country partner, will initiate a review with the Ministry of Health and determine a written remediation plan (that will include corrective and preventive actions, i.e., CAPAs).
- Lab managers and supporting implementing partners must ensure that KPI data is used to attain continuous process improvements in their laboratories

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Key Performance Indicators – Zambia's case study

How implementation of KPI's in Zambia has improved vendor performance in the reagent rental model.

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Background

- To reach the last 95% (VL suppression) it was prudent for Zambia to expand VL coverage and implement monitoring systems - KPIs
- GHSC-PSM provides cost-effective, reliable procurement services and technical assistance to the Zambian government
- Working with the Ministry of Health, GHSC-PSM implemented the reagent rental model for VL/EID commodities through the introduction of Service-Level Agreements negotiated with certain global diagnostics manufacturers.
- A reagent rental model agreement was instituted in order to standardize a service package, pricing model and price levels that were envisioned to achieve the following objectives.
  - Establish all-inclusive packages
  - Extend standardized SLAs
  - Ensure countries have cost effective pricing
  - Enable remote instrument connectivity
- To achieve all this, ten KPIs were introduce to monitor both vendor and program performance

Results of KPI intervention

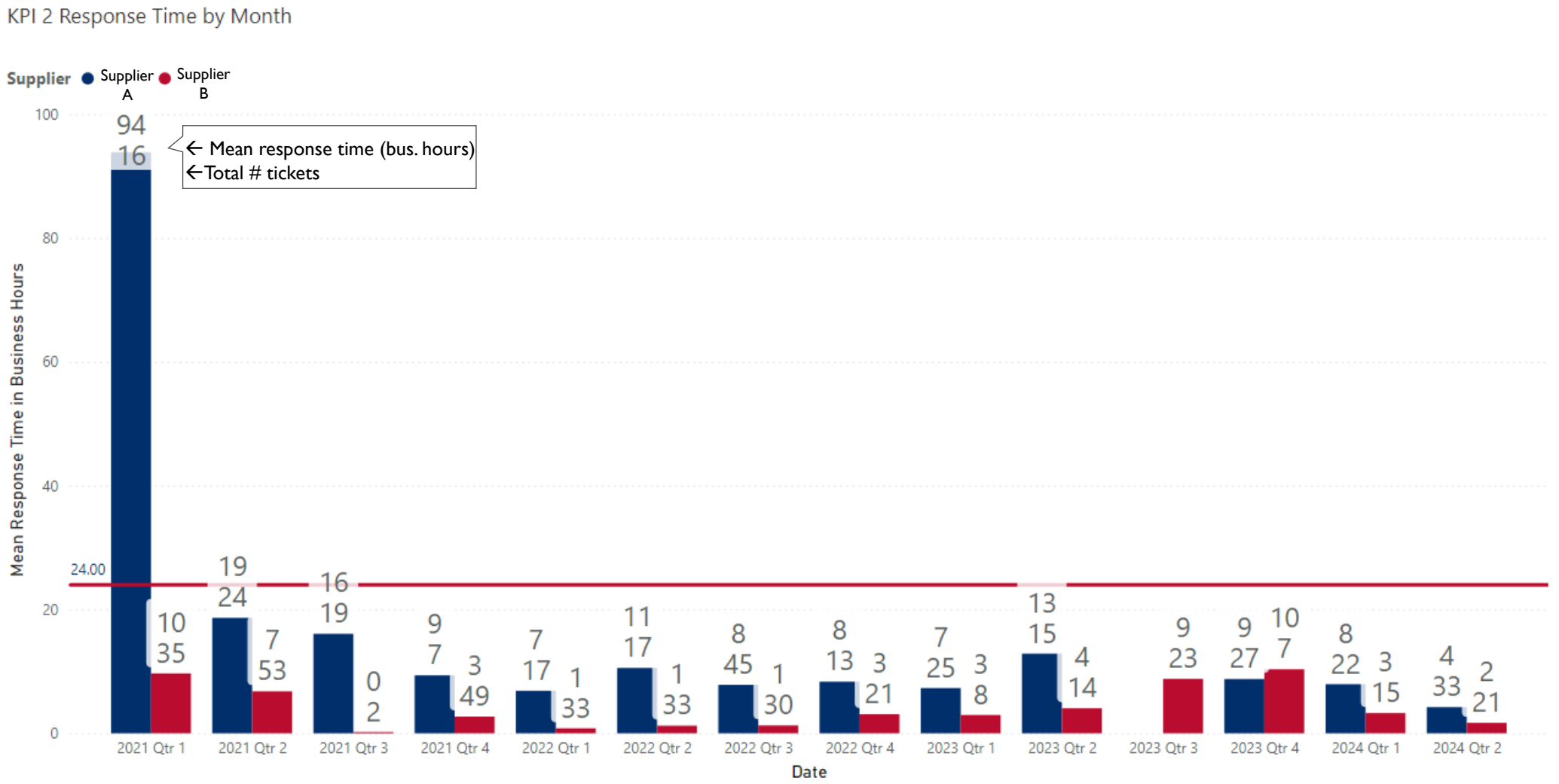
Before KPI introduction

- Long vendor repair response time
- Short commodity shelf life
- Long instrument repair lead times leading to sample backlogs
- Lack of remote instrument performance monitoring by stakeholders

After KPI introduction

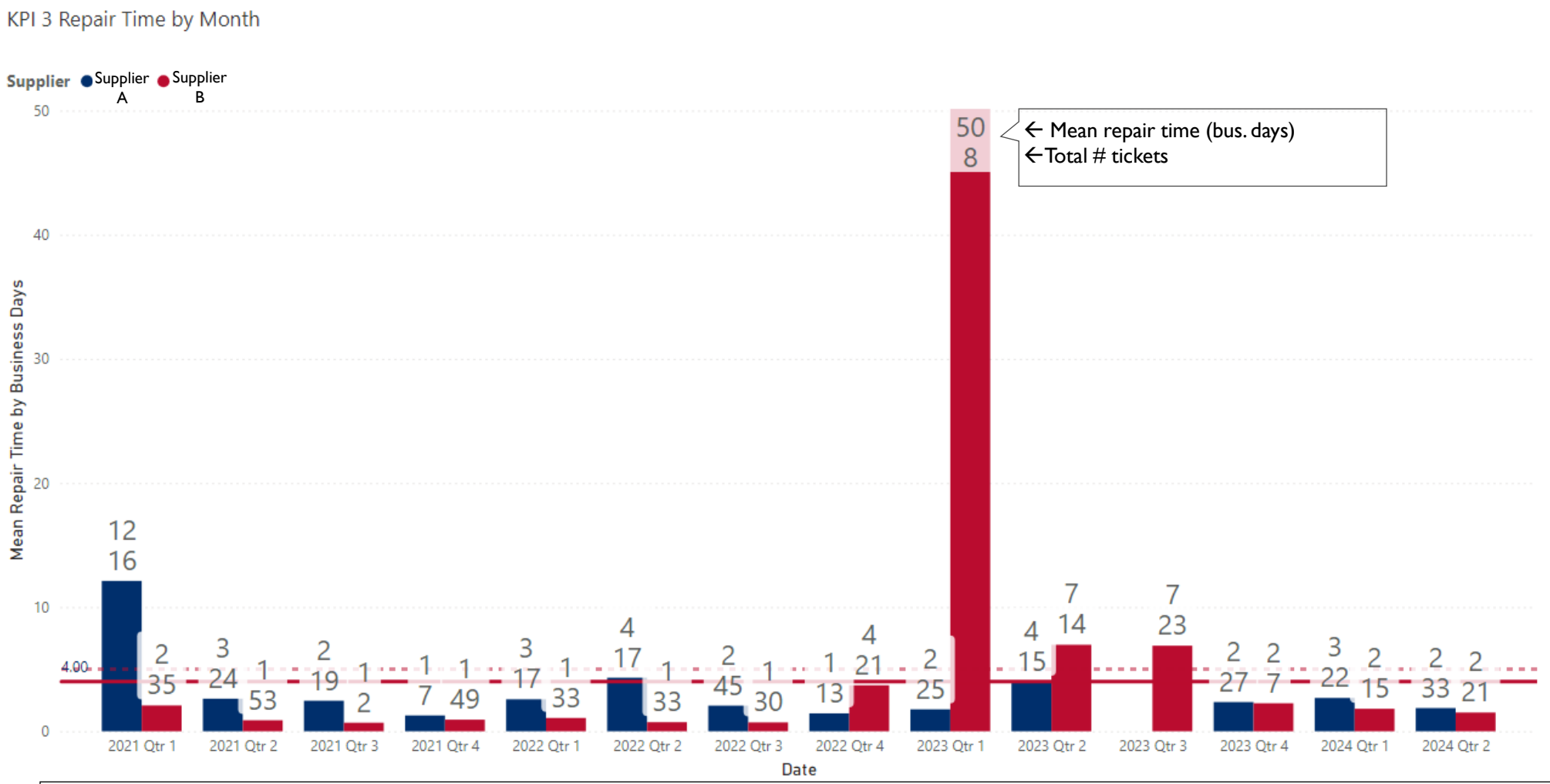
- Improved vendor response time of 48hrs after facility report.
- Improved long commodity shelf life of not less than nine months
- Improved equipment repair time.
- Remote instrument performance monitoring through data and

Response Times have decreased over the KPI monitoring period



- Introduction of electronic maintenance request systems has increased the speed of responses significantly.

Repair Time improves over time for one supplier; Second supplier had a spike, but was brought back under control

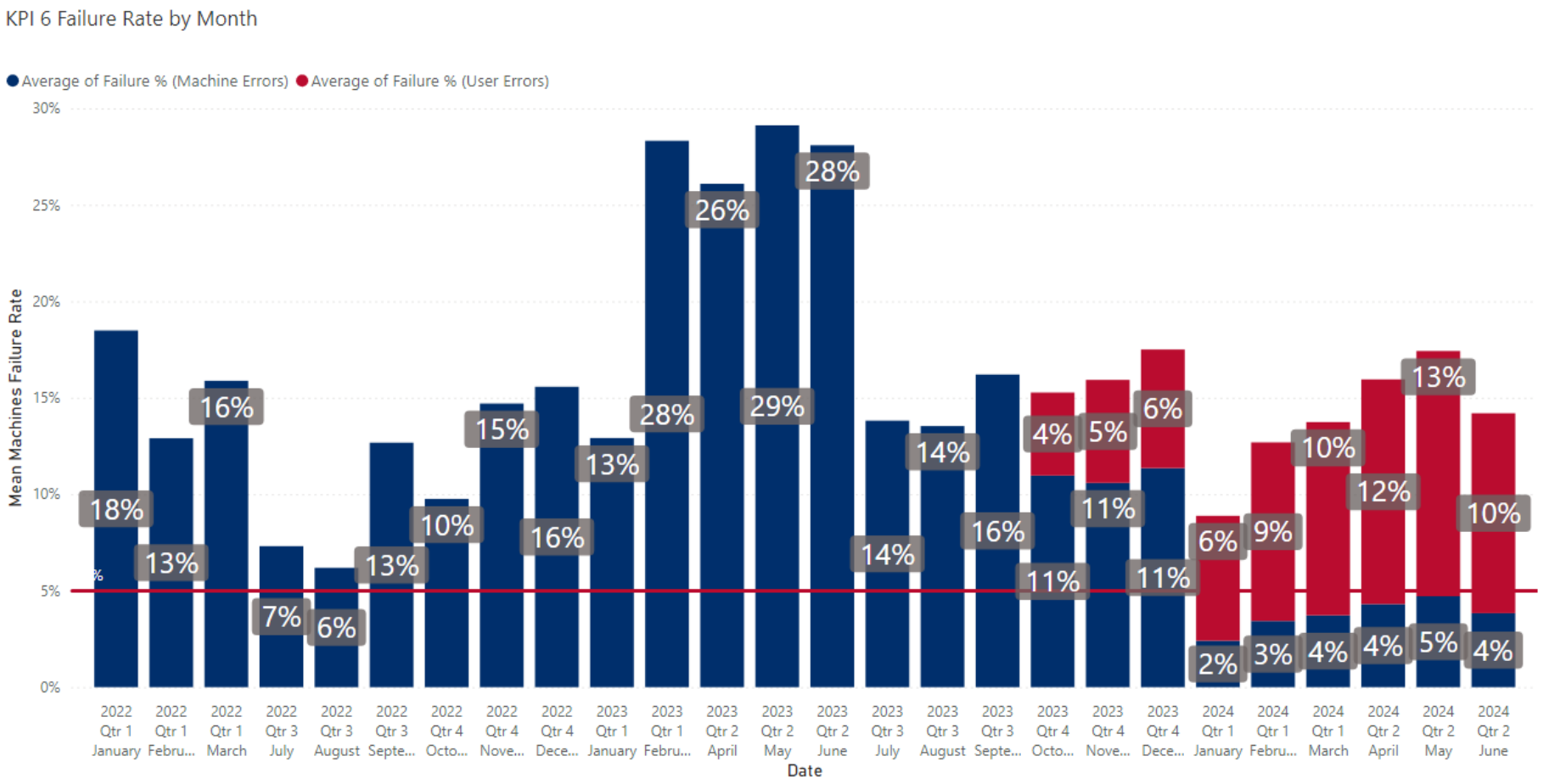


- Spike in repair time came in a quarter with relatively few tickets, indicates likely outlier
- All instruments with extensive repair times were at one site

Results of KPI intervention - example

- To ensure the KPIs were met by vendors, interventions such as the CAPA (Corrective & Preventive Action) was introduced, based on the KPI reviewed results.
  - The CAPA enabled us to identify the root causes of KPI 6 and institute mitigation measures, for it was always above 5%.
  - Ongoing user trainings were introduced as a mitigation plan.
  - Targeted facility staff trainings were also instituted – to address user and sample related errors.

Error Rates peaked in 2023, but have decreased in the last year



- Supplier began implementing corrective actions in 2023 after several months of unacceptable error rates
- CAPA initiated in early 2024 after supplier's corrective actions could not bring the error rate below the acceptable threshold of 5%
- CAPA pushed the supplier to perform deeper root-cause analysis of failed tests, leading to supplier identifying user-caused errors, which could be excluded from the scores

Conclusion

- Introduction of KPIs that are reviewed by the MOH together with stakeholders on a quarterly basis has:
  - ✓ Improved vendor performance
  - ✓ Led to accountability of all stakeholders involved
  - ✓ Improved monitoring of the reagent rental performance
  - ✓ Enhanced program ownership by the MOH.

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THANK YOU

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