QI PROJECT PDSA CYCLES REPORT FORM

QIP: Reduce supply chain Inefficiency from a median of 17% to less than 5% from 21/10/2016 to 20/10/2017

START DATE:21/10/ 2016 EC

END DATE: 20/10/2017EC

QI PROJECT LEADER: Nuredin Yigezu (MPH)

CHANGE IDEA: CONDUCTING SUPPLY CHAIN MEETING	PDSA 1: CYCLE II		DATE: 30/04/2017EC
PLAN			
WHAT IS THE PURPOSE OF THIS CYCLE? (Check one)	DEVELOP	✓ TEST	IMPLEMENT

WHAT IS THE OBJECTIVE OF THIS CYCLE? WHAT QUESTIONS DO YOU WANT TO ANSWER? WHAT ARE YOUR PREDICTIONS?

Objective: To further reduce supply chain inefficiency from 7.2% to <5% by holding structured quarterly supply chain performance review meetings and addressing component-level inefficiencies.

Questions to Answer: Can structured quarterly supply chain meetings with data feedback reduce supply chain inefficiency from 7.2% to <5%?

Predictions: The cycle will lead to achieving <5% total inefficiency by the end of the quarter..

LIST TASKS NECESSARY TO SET UP AND CONDUCT THE TEST (THINK 'ONENESS' AND 'DROP TWO')

What? (Specifc task)	How? (Checklist, tally sheet)	Who? (Name or role)	When? (Times, dates - be specifc)	Where? (Program, location site - be specifc)
• Conduct supply chain meeting	• Standardized checklist • Assessment reports	Nuredin Y. (Team Leader) Rediwan S. (Data Collector)	QUARTERLY	FINANCE

OUTLINE YOUR PDSA DATA COLLECTION PLAN (WHAT, HOW, WHO WHEN AND WHERE)

What data will be collected?	How? (Checklist, tally sheet)	Who? (Name or role)	When? (Times, dates – be specifc)	Where will the data be recorded?
Assessment of 11 areas of supply chain areas	Model 19, Bincard, Eapts Transactions, Observation	Rediwan S.	Quarterly	Pharmacy and Finance
		DO		

WHAT DID YOU OBSERVE DURING THE TEST? WERE THERE ANY UNEXPECTED OBSERVATIONS OR ISSUES? WHAT WENT WELL?

- **Overall Efficiency Improvement:**
  The total supply chain inefficiency decreased from **7.2% to 6.0%**, showing measurable improvement across multiple domains.
- **Effective Use of Tools:**
  The implementation of **Model 19**, **BinCards**, and **EAPTS transaction records** supported better tracking, documentation, and analysis of inventory movement.
- **Moderate Performance in Some Areas:**
  - **Demand Forecasting [0.30%]**, **Wastage Reduction [0.38%]**, and **Supplier & Distribution [0.43%]** maintained relatively low inefficiency levels.
  - **Storage [0.60%]** and **Dispensing Practice [0.51%]** areas showed reduced handling errors, good product arrangement, and reasonable turnaround time.

Unexpected Observations and Issues:

- **Inventory Management Had the Highest Inefficiency Contribution [1.5%]:**
  Gaps in regular inventory reviews, absence of minimum and maximum stock level policies, and poor updating of stock records were observed. Delays in reconciling bin cards with physical stock were frequent.
- **Communication and Coordination Gaps [0.60%]:**
  Structured communication between clinical units and supply chain teams was weak or missing, leading to slow responses during urgent stock needs.
- **Technology Underutilization [0.51%]:**
  Despite the availability of systems like **EAPTS**, full utilization was not observed due to limited staff training and inconsistent digital data entry.
- **Monitoring and Reporting Weakness [0.13%]:**
  There was no routine KPI tracking or quarterly reporting. Data use for decision-making was minimal, and reporting timelines were rarely followed.
- **Procurement [0.55%] and Financial Management [0.47%] Gaps:**
  Procurement lacked timely contract reviews and supplier evaluations. Financial oversight was not aligned with cost-efficiency tracking or variance analysis.

STUDY

ANALYZE YOUR DATA AND DESCRIBE THE RESULTS. HOW DO THE RESULTS COMPARE WITH YOUR PREDICTIONS? WHAT DID YOU LEARN FROM THIS CYCLE?

The predicted outcome of this cycle was to reduce the overall supply chain inefficiency to **below 5%**. While the target was not fully achieved, the inefficiency was reduced from **7.2% to 6.0%**, marking a **1.2% improvement**. This demonstrates that the interventions implemented—particularly the structured supply chain meetings and the use of inventory tracking tools like **EAPTS data , BinCards, and Model 19**—had a positive impact.

No.	Area of Inefficiency	% Contribution	Cost (ETB)
1	**Inventory Management**	**1.50%**	**14,175**
2	Communication & Coordination	0.60%	5,678
3	Storage Practice Inefficiency	0.60%	5,678
4	Dispensing Practice Inefficiency	0.51%	4,837
5	Technology & System Integration	0.51%	4,837
6	Procurement Efficiency	0.55%	5,477
7	Financial Mgmt. & Cost Efficiency	0.47%	4,147
8	Supplier & Distribution Performance	0.43%	3,865
9	Wastage Reduction	0.38%	3,557

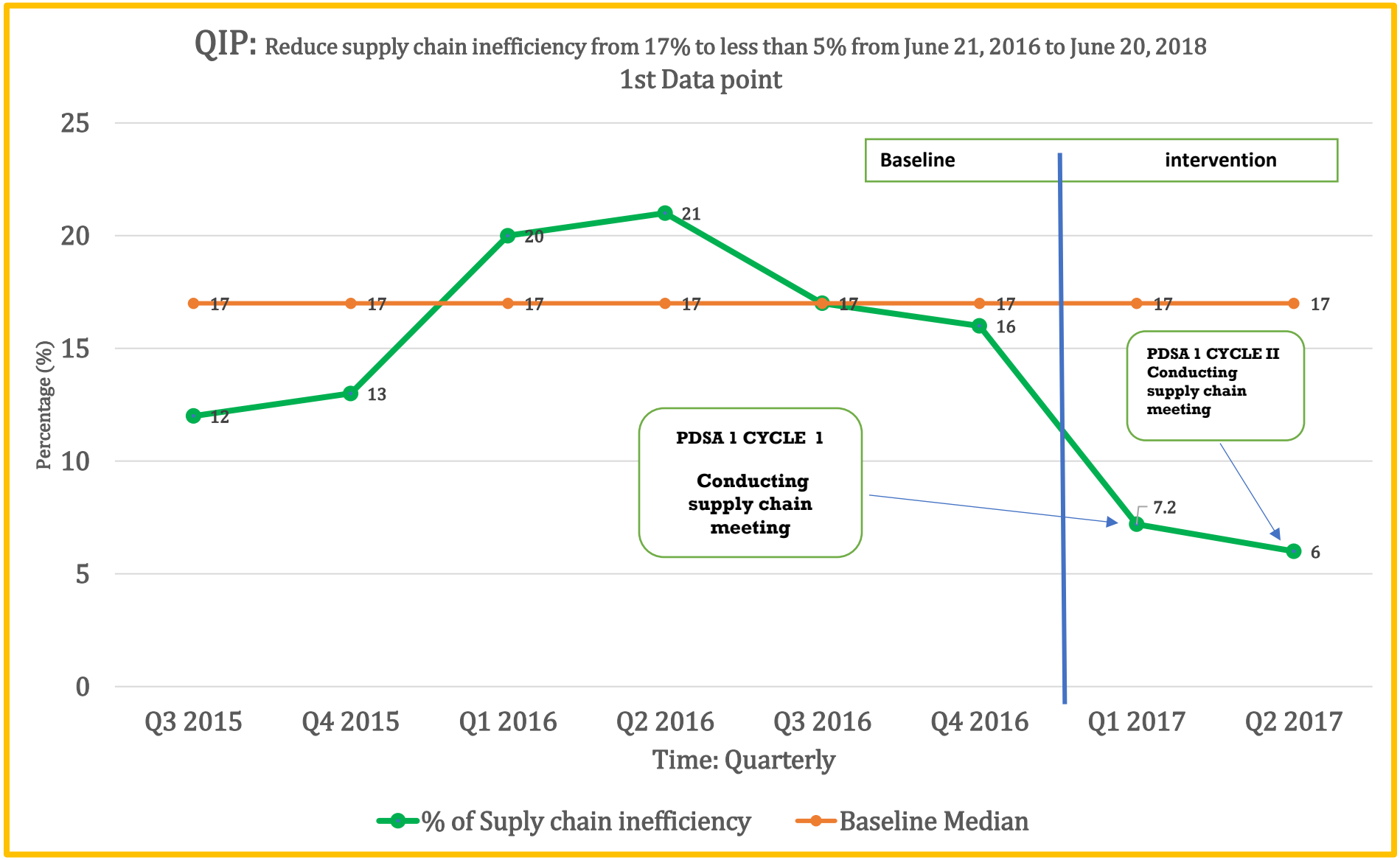
10	Demand Forecasting	0.30%	2,703
11	Monitoring & Reporting	0.13%	738
	Total	**6.00%**	**56,780 ETB**

Lessons Learned:

- **Inventory Management** had the **highest contribution to inefficiency (1.5%)**, highlighting the need for stronger inventory control policies, frequent physical audits, and consistent stock level reviews.
- The **low contribution from Monitoring & Reporting (0.13%)** and **Demand Forecasting (0.30%)** suggests either underreporting or lack of data use, not necessarily actual efficiency.
- Although **technology tools like EAPTS were available**, their inconsistent use limited their potential impact, especially in **real-time tracking and automated alerts**.
- **Communication and Coordination (0.60%)** remains a key area for improvement, as poor information flow between departments contributed to delays in resolving stock issues.
- Structured meetings and team-based reviews improved visibility into procurement and storage processes, but **additional accountability mechanisms and routine digital reporting** are essential to sustain gains.

ACT		
Adapt: **Implement quarterly inventory reviews** using standardized checklists and cross-verification with bin cards		
ADAPT (note changes for next cycle	ADOPT	ABANDON

Reported by: Rediwan S. Case Team: QI team Date: TAHSAS 30, 2017E.C


QIP: Reduce supply chain inefficiency from 17% to less than 5% from June 21, 2016 to June 20, 2018
1st Data point
Baseline
intervention
PDSA 1 CYCLE 1
Conducting supply chain meeting
PDSA 1 CYCLE II
Conducting supply chain meeting
Percentage (%)
25
20
15
10
5
0
12
13
20
21
16
7.2
6
17
Q3 2015
Q4 2015
Q1 2016
Q2 2016
Q3 2016
Q4 2016
Q1 2017
Q2 2017
Time: Quarterly
% of Suply chain inefficiency
Baseline Median