



Optimizing Pharmaceutical Procurement

A Data-Driven Strategy for Enhanced Supply Chain Resilience

Prepared for the Suez Canal Authority Leadership | March 2024

A 73% Overall Supply Rate Masks a Critical “All-or-Nothing” Fulfillment Problem, Resulting in a EGP 68.6 Million Supply Gap



The Situation: While the top-line pharmaceutical supply rate is 72.8%, a deeper analysis reveals a systemic fulfillment issue where nearly half of all requested items are never delivered (0% fulfillment).



The Impact: This creates a significant operational risk, evidenced by a **EGP 68.6 million gap** in fulfilled orders and **frequent stockouts** of essential medicines.



The Recommendation: We propose a three-pillar strategy focusing on **Strategic Supplier Management**, **Proactive Inventory Planning**, and **Process Optimization** to mitigate risk and improve supply chain resilience.

Our Analysis is Based on Comprehensive Procurement Data from the Past Year

Timeframe



**June 2023 –
March 2024**

Total Demand Value



**EGP 257.0
EGP 257.0 Million**

Suppliers Analyzed



59

Distinct Items Tracked



1,233

The Headline Metric Suggests Stability:
An Overall Supply Rate of 72.8%

72.8%



Total Demand

EGP 257.0M

53M Units



Total Received

EGP 194.0M

39M Units



Supply Gap

EGP 68.6M

14M Units

However, a EGP 68.6 Million Supply Gap Creates Significant Operational Exposure

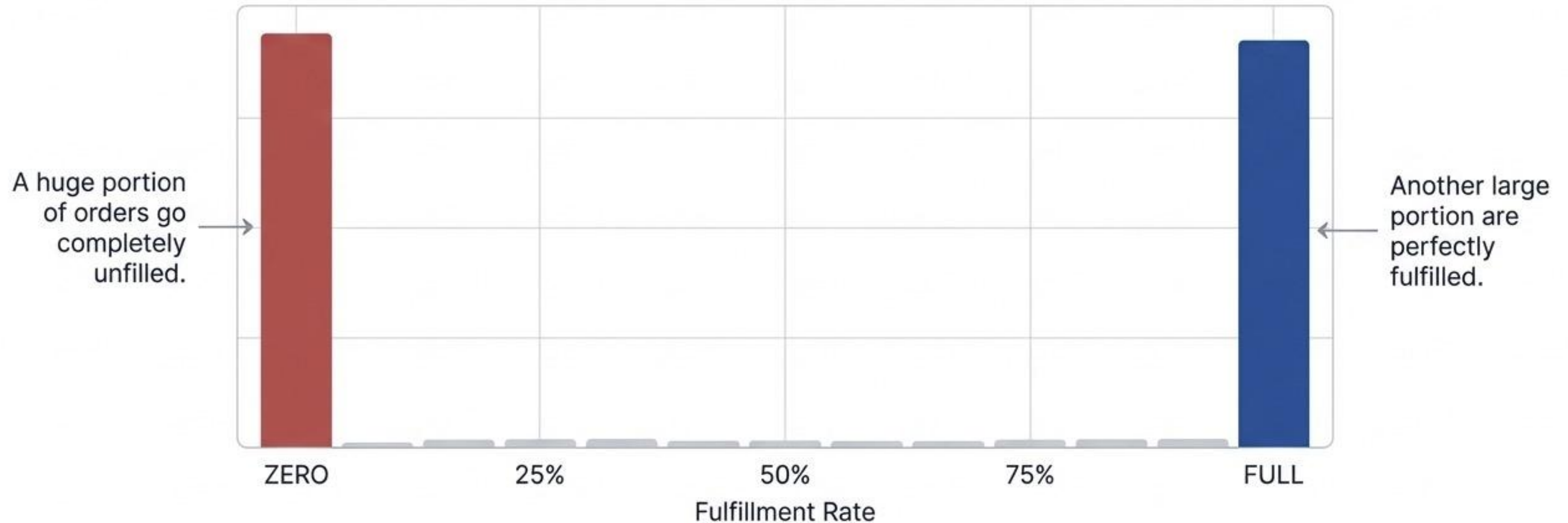


This gap represents more than a financial variance; it signifies a direct risk to operational continuity and the availability of necessary medical supplies.

The Core Problem: Procurement Follows a High-Risk, “All-or-Nothing” Pattern

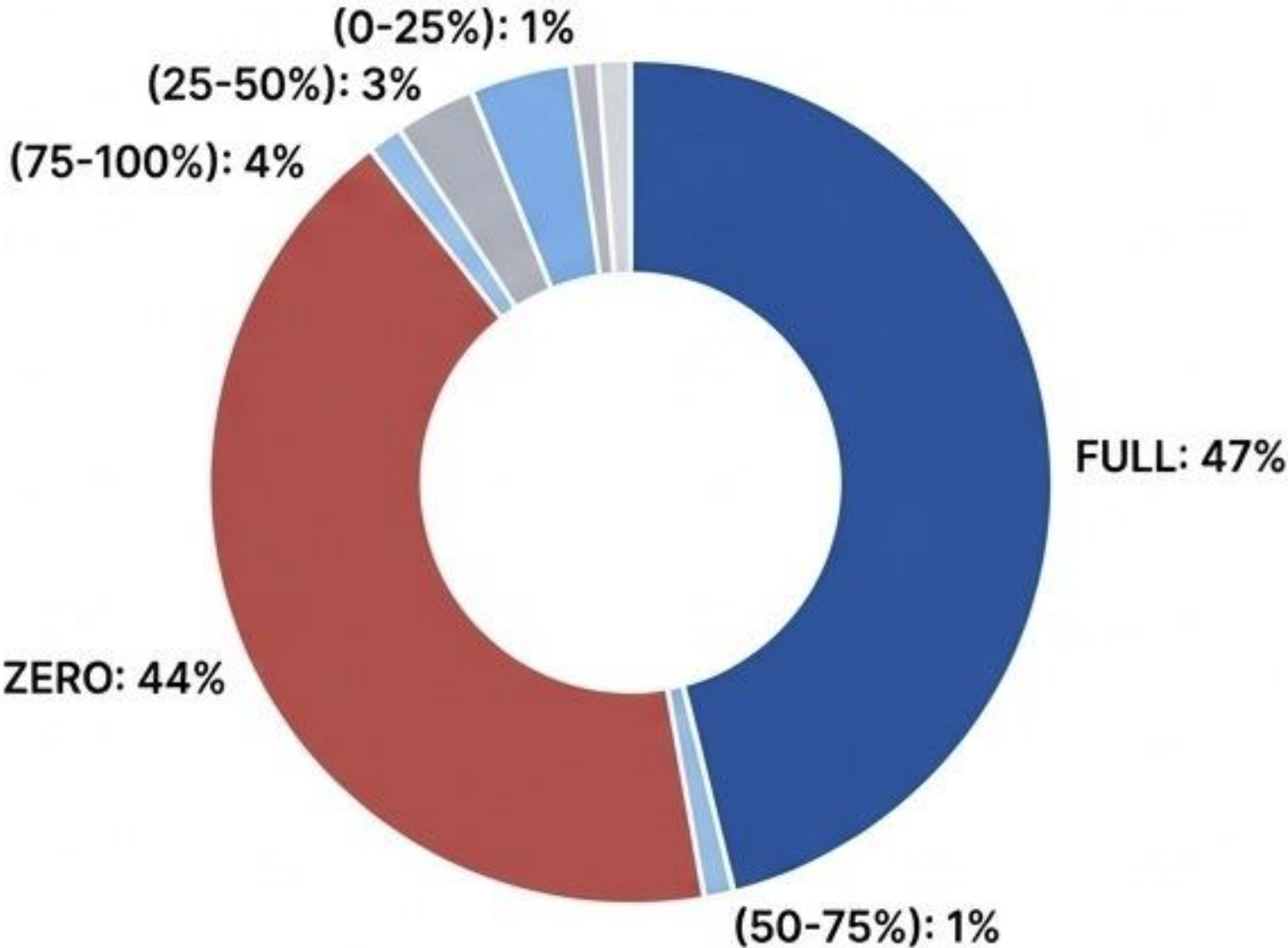
The overall 73% supply rate is an average of two extremes. Most orders are either fulfilled completely or not at all, with very few partial fulfillments. This points to a systemic issue, not random under-supply.

Distribution of Order Fulfillment



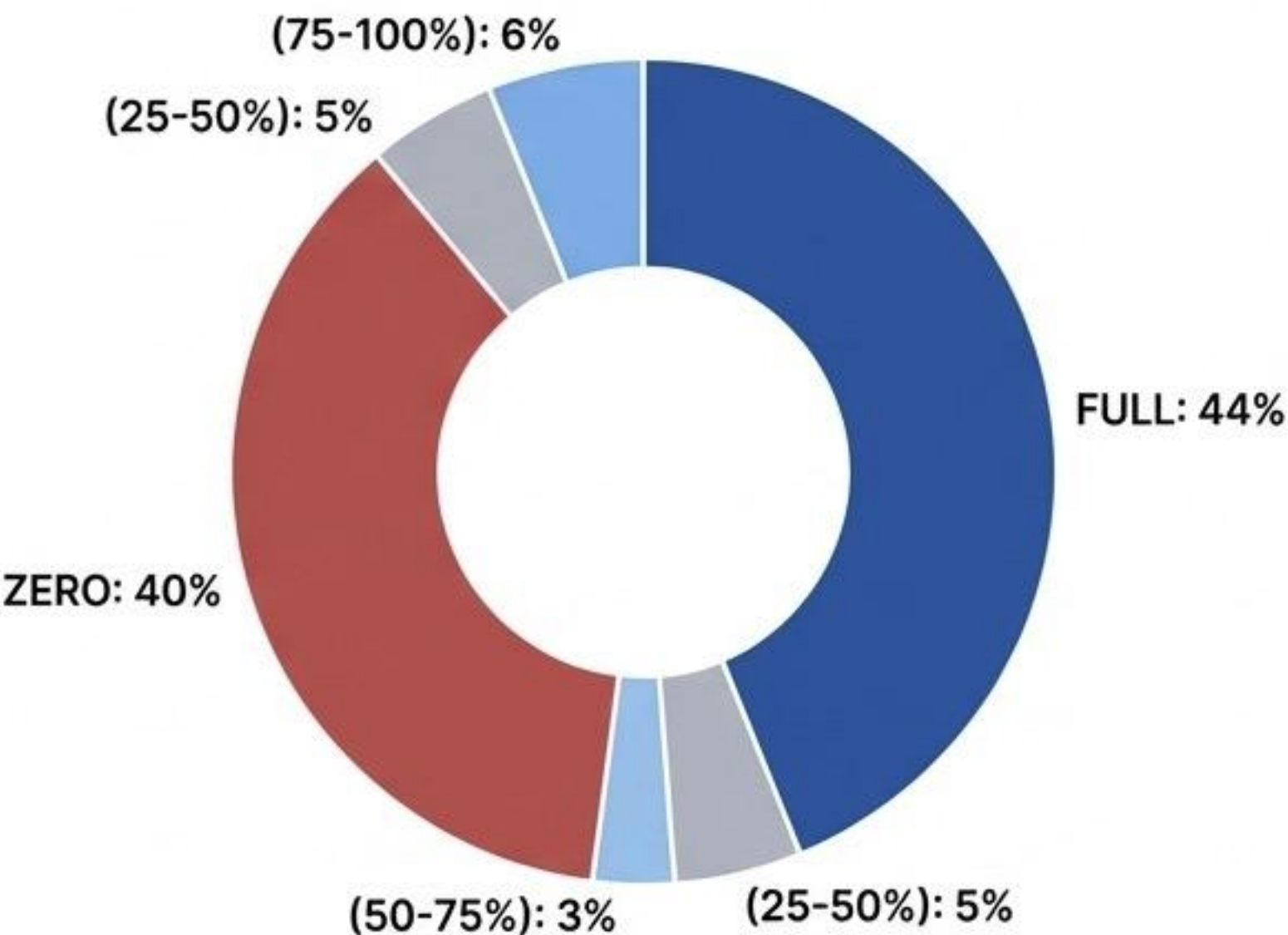
Data Confirms Over 40% of All Ordered Items Are Never Delivered

Repetitive Items Segmentation



For routine, recurring orders, fulfillment is a coin toss: 44% of the time, nothing arrives.

Distinct Items Segmentation



The 'all-or-nothing' issue persists even for unique or less frequently ordered items.

This Fulfillment Failure Translates to Critical Stockouts of Essential Medicines

Examples of High-Demand Items with Zero Fulfillment

Item Name	Demand (Units)	Demand Cost (EGP)	Fulfillment
T4 / ENTECAVIR 0.5MG...	3,965	EGP 12,523.6	0%
T12 / Ondansetron 4mg/2ml...	3,778	EGP 14,919.3	0%
T18 / Heparin Sodium 5000 IU...	2,450	EGP 7,840.0	0%
T18 / Heparin Sodium ...	2,450	EGP 7,840.0	0%
T22 / Vancomycin 500mg...	1,200	EGP 9,000.0	0%
T22 / Vancomycin 500mg...	1,200	EGP 9,000.0	0%
T30 / Propofol 1% 20ml...	950	EGP 6,650.0	0%
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Total value of 'ZERO' supply items amounts to EGP 35.3M across 1607 orders.

Supplier Performance is Highly Concentrated, with Two Suppliers Driving Nearly 40% of Received Value

Contribution to Received Value (EGP) by Supplier



The top 5 of 59 suppliers account for over 70% of the total fulfilled value, indicating a high degree of dependency.

A Three-Pillar Strategy to Build a Resilient and Reliable Pharmaceutical Supply Chain

Strategic Supplier Management



Segment suppliers and cultivate strategic partnerships with top performers while actively managing risk with underperformers.

Proactive Inventory Planning



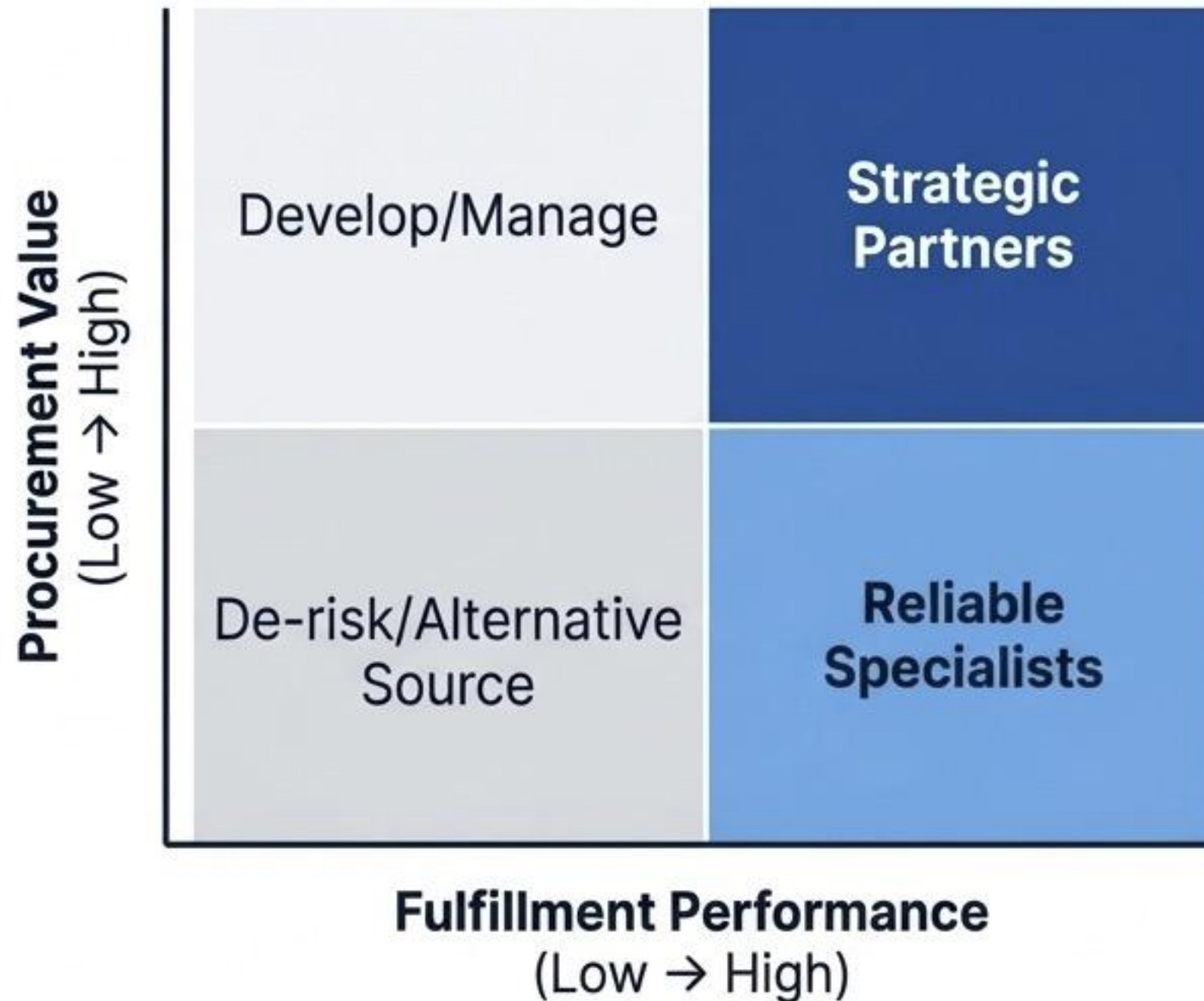
Redesign inventory policy based on item criticality (Vital, Essential, Non-Essential) to insulate against stockouts of key medicines.

Process & Systems Optimization



Enhance procurement processes with better visibility, early warning systems, and rigorous root-cause analysis for failures.

Recommendation 1: Segment Suppliers and Forge Strategic Partnerships



- **Segment:** Classify all 59 suppliers into the four performance categories.
- **Partner:** Establish Joint Business Plans and preferred terms with “Strategic Partners” to secure supply of high-volume items.
- **Manage:** Implement stringent SLAs and performance dashboards for suppliers in the “Develop/Manage” quadrant to address the root causes of their non-fulfillment.

Recommendation 2: Redesign Inventory Policy Around Item Criticality

1. Classify All Items

Implement an ABC (value-based) and VEN (Vital, Essential, Non-essential) classification for the entire pharmaceutical catalog.



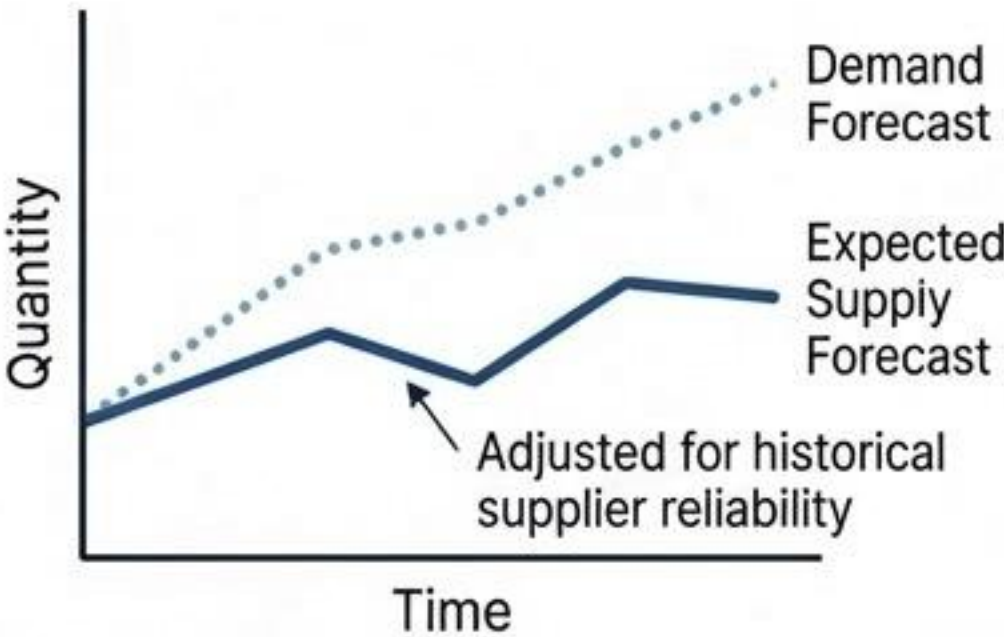
2. Differentiate Stocking Strategy

For “Vital” items prone to zero-fulfillment, persist strategy and din-stable, establish higher safety stock levels and identify pre-approved attenns alternative suppliers.

3. Enhance Demand Forecasting

Augment forecasting models to incorporate historical supplier fulfillment rates, creating a more realistic “expected supply” plan, not just a demand plan.

Category	Safety Stock Policy	Sourcing Strategy
Vital	High	Pre-approved Alt. Suppliers
Essential	Medium	Single/Dual Source
Non-essential	Low / JIT	Spot Buy / Standard



Recommendation 3: Enhance Visibility and Proactively Manage Risk

1. Centralize PO Tracking

Action

Implement a real-time dashboard for all open purchase orders, tracking status from issuance to delivery.



2. Build an Early Warning System

Action

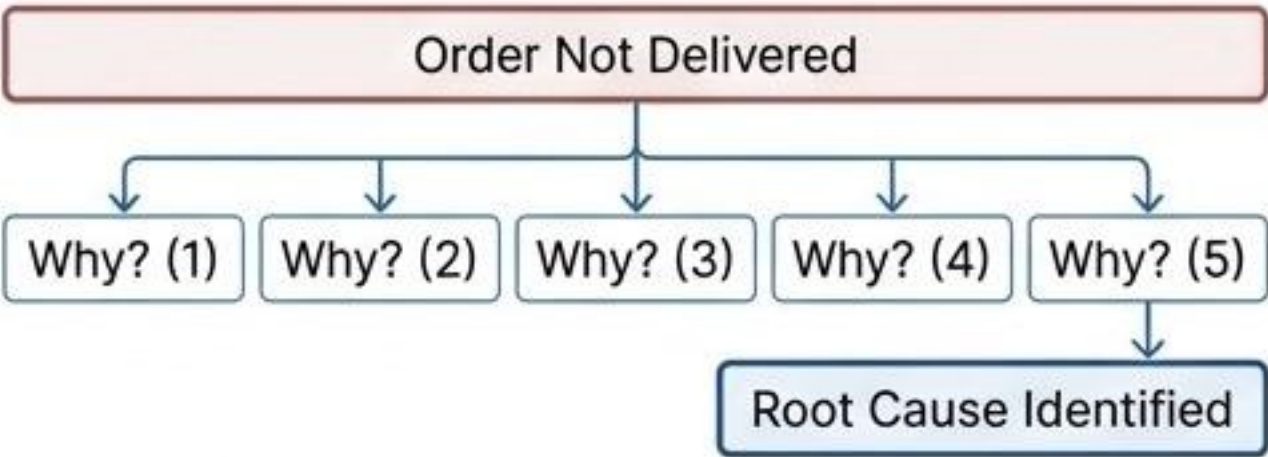
Create automated alerts that flag POs at high risk of non-fulfillment based on supplier history, item category, and lead time.



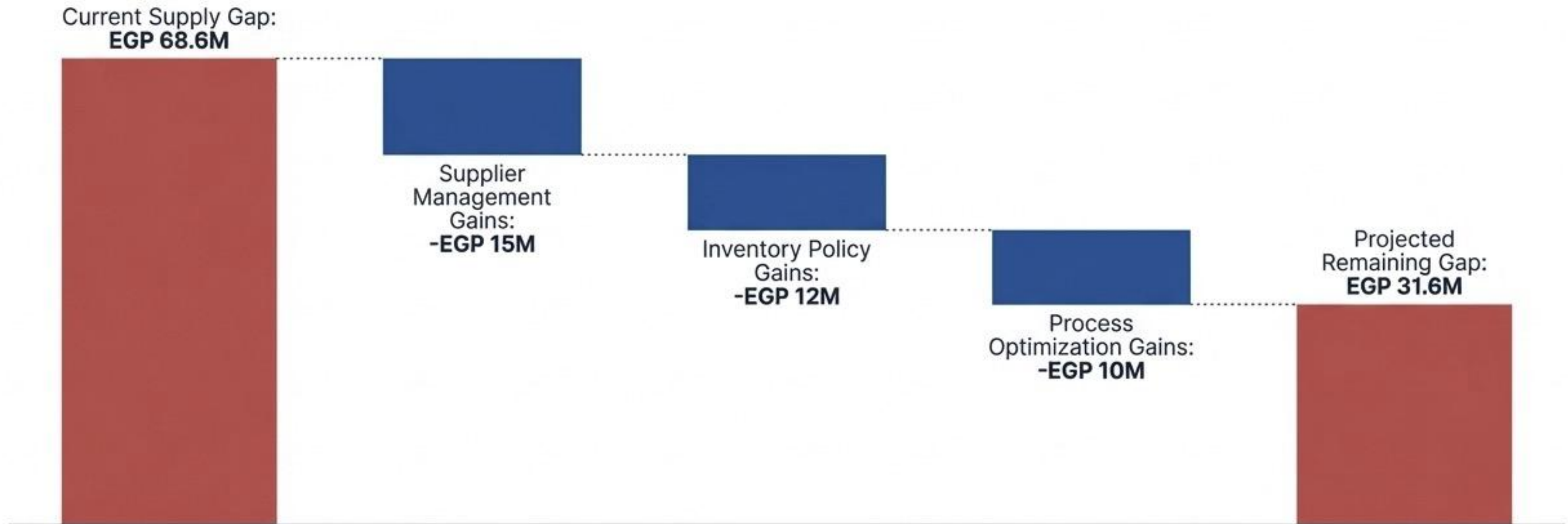
ALERT: PO-99923 with Supplier X is at 75% risk of non-fulfillment.

3. Mandate Root-Cause Analysis

For every order that results in ZERO fulfillment, a mandatory “5 Whys” analysis must be conducted and logged to identify and resolve systemic bottlenecks.






Projected Impact: Reducing the Supply Gap by Over 50% and Securing Critical Supply Lines






This strategy is projected to recapture **over EGP 37 million** in fulfilled orders and, more importantly, drastically **reduce the frequency** of critical **stockouts**.

The Path Forward: A Phased Plan to Drive Immediate and Long-Term Value



-  Charter cross-functional team.
-  Conduct full supplier segmentation and item classification.
-  Pilot root-cause analysis process.

-  Renegotiate contracts with strategic partners.
-  Implement new inventory policies.
-  Develop and deploy tracking dashboards.

-  Launch early warning system.
-  Refine forecasting models.
-  Conduct quarterly performance reviews.

Required Decisions

1. Approval of the three-pillar strategic framework.
2. Chartering of a dedicated implementation task force.
3. Allocation of resources to begin Phase 1 immediately.