

# Bottom-up Innovations: System of Auditable Pharmaceutical Transactions, and Services (APTS) for supply chain, proper use of medicines, and delivering health services in Ethiopia.



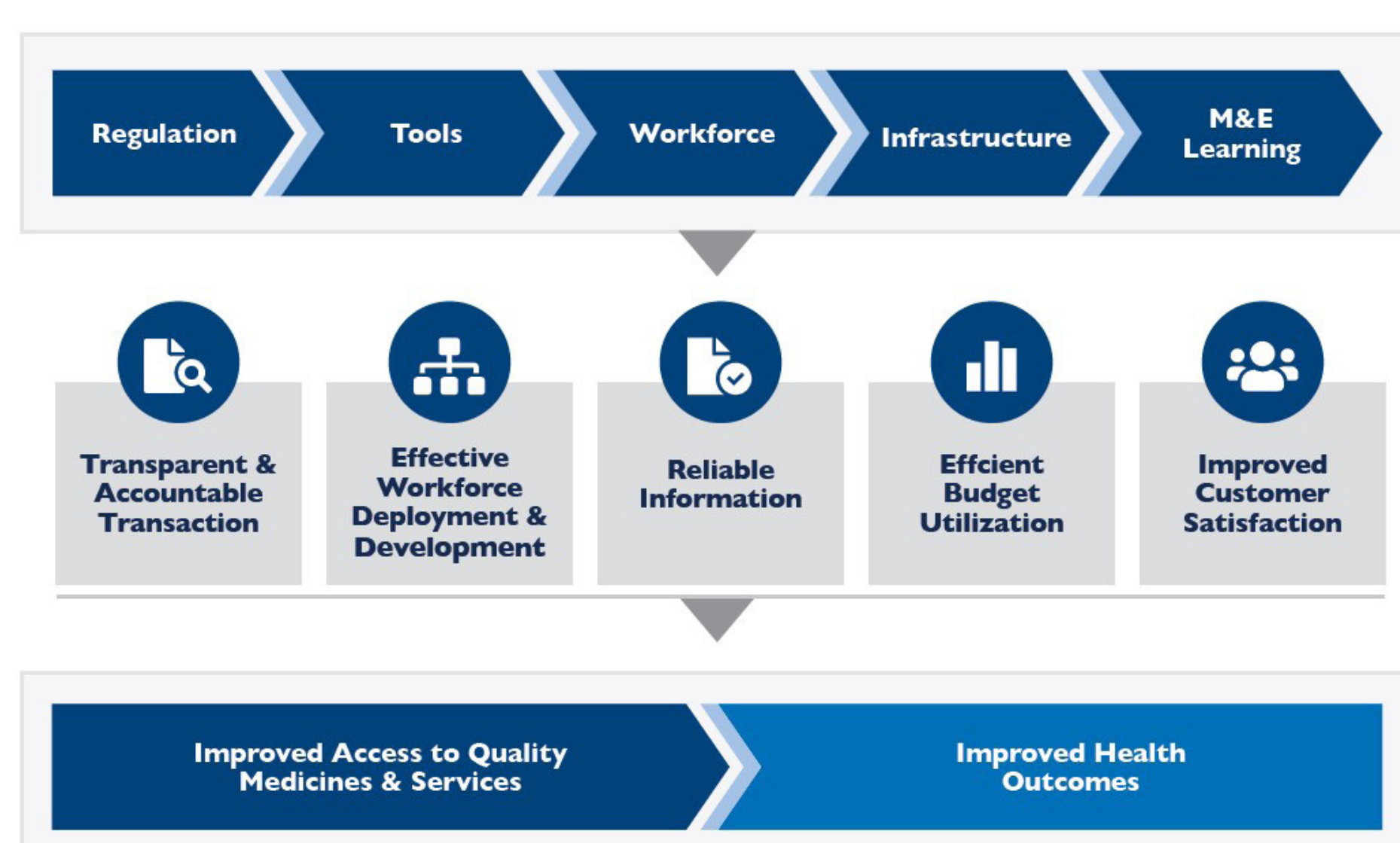
3D design of APTS dispensing counters

Ethiopia's challenges with health care access can be attributed to gaps in the health system and supply chain

- ➔ Poor deployment of human resources.
- ➔ Poor management of and planning for commodities.
- ➔ High wastage rates and low availability of medicines.
- ➔ Lack of transparency of transactions preventing the tracking of medicine theft.
- ➔ Under-resourced service delivery systems to give proper care to patients.

## Introducing APTS

- ➔ APTS is first designed and implemented by Debreworkos Referral Hospital and scaled up to many parts of the country by the support of GHSC-PSM predecessor USAID funded project and its improvement continued for the last five years based on lessons.
- ➔ APTS is designed based on health systems building blocks and has five result areas: efficient budget utilization, effective workforce, transparent and accountable transactions, reliable information system and improved customer satisfaction.
- ➔ USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project conducted a cross sectional study from September 5 to October 5, 2020.
  - The collected data was analyzed using Microsoft Excel and Statistical Package for the Social Sciences (SPSS) version 23.
  - Interviewed 130 pharmacists and supply chain managers and 650 patients/clients.
- ➔ GHSC-PSM has supported 263 hospitals (238 general and 25 specialized) since 2017 to implement APTS.
- ➔ APTS contributes to improvements in five result areas as shown below.



APTS Result Areas and Implementation Approaches (adapted from SIAPS technical report)

## Approach

The GHSC-PSM project provides comprehensive support to design and implement APTS.

- ➔ Develop guidelines, recording tools, and training materials.
- ➔ Provide capacity building trainings, coaching and mentoring.
- ➔ Monitor APTS implementation.
- ➔ Supported renovations to pharmacy premises.
- ➔ Helped properly deploy pharmacy staff.

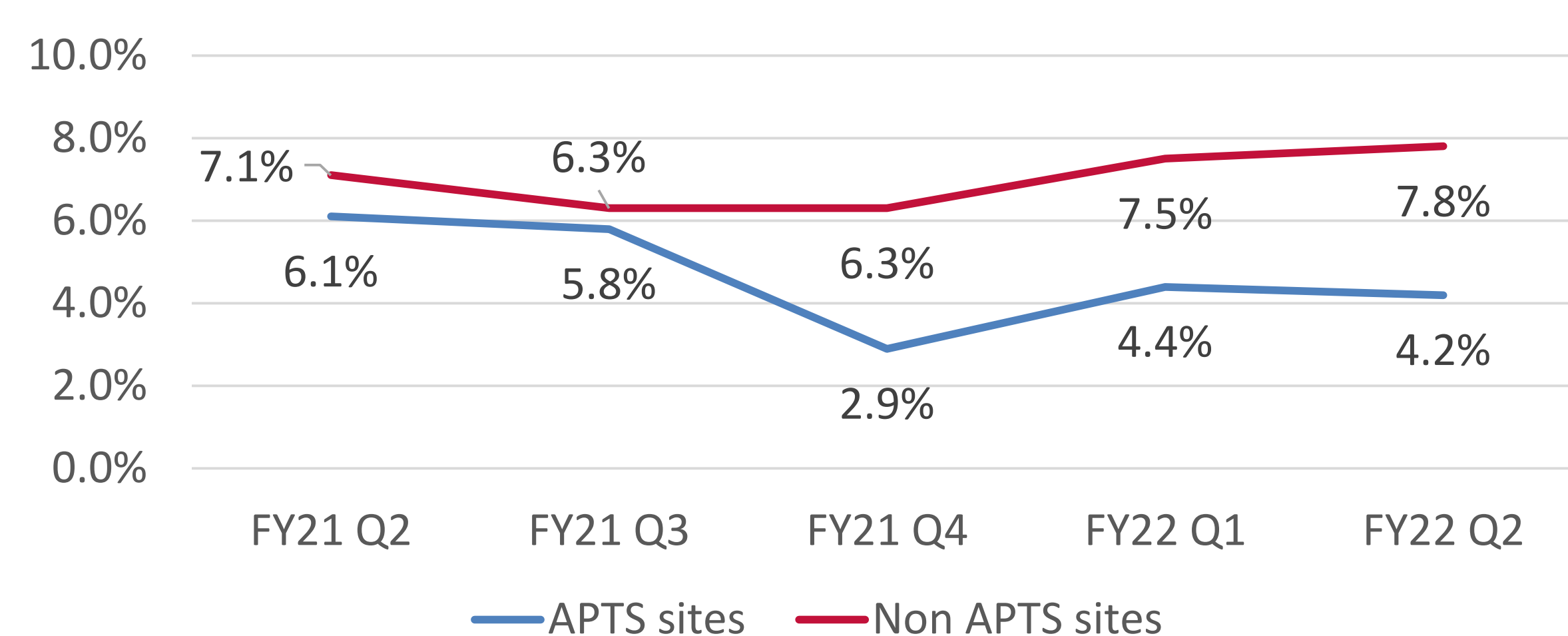


## Result

Ethiopia's challenges with health care access can be attributed to gaps in the health system and supply chain

- ➔ Availability of key tracer medicines increased from 70% to 90%.
- ➔ Stockout duration decreased from 61.1 to 43.3 days.
- ➔ Wastage rate decreased from 5.1% to 1.9%.
- ➔ Pharmacist deployment based on workload analysis increased by 97.6% (from 338 pharmacists before implementing APTS to 668 after implementing APTS).
- ➔ Following introduction of *before, during and after* inventory approach and bin ownership, maximum time to complete physical inventory at the stores decreased from 30 days to 4 days and at dispensary from 2 days to 1 day.
- ➔ Patients at 92% of the hospitals were correctly recalling the dose, routes, and frequency of administration of their medicines.
- ➔ Most of the patients (585 or 90%) were satisfied with the pharmacy service and most (607 or 93.4%) were satisfied with the dispensing counter design implemented with APTS.
- ➔ All 130 pharmacists stated that they like the APTS system.

Stockout rate trend for antimalarial commodities, FY21 Q2 to FY22 Q2, Source GHSC-PSM



## Conclusion

**APTS contributes to ensure availability and access to essential medicines such as antimalarials and MNCH products. APTS improves standard of practices in recording and reporting and resulted in transparent management of commodity transactions in health facilities. It improved patients' and professionals' satisfactions. As a result, APTS initiated in a hospital with motivated staff and management has now become a national flagship initiative for the country's health system.**

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