Presented by the USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project in Ethiopia

Background

- Auditable Pharmaceutical Transaction and Services (APTS) is an innovate Ethiopian system that institutes and is enacted by **regulation, directive and guidelines**.

- APTS establishes human resource deployment based on workload analysis.

Before APTS in Ethiopia:

- Deployment of human power (HP) was not based on workload analysis

- Resulting in pharmacy HP shortages and difficulties in
    - Controlling medicine availability
    - Reducing wastage rates
    - Serving patients properly

HR challenges

- **Undefined roles and responsibilities**
- **Bin ownership:**
  - **Overextended physical inventory (PI) period**
  - **Inaccuracy of PI**
- **Counter layouts made service difficult for all patients, especially mothers carrying children**

- Difficulties in dispensing medicines and counseling patients

Why?

- Shortage of staff and dispensary counters
- There was no collective responsibility – this also led to theft & pilferages

APTS has
5 Result Areas

Method

- National cross-sectional study was conducted in 26 hospitals (HLs) selected from all APTS sites

- The practice of workforce deployment assessed for:
  - supply chain in HLs
  - service based on APTS workload analysis

- Study was approved by MOH

For the assessment:

- The 26 hospitals were selected purposefully from all regional states of Ethiopia

- APTS is implemented in 246 of 363 general HLs (70%) and 25 of 26 federal HLs (96%)

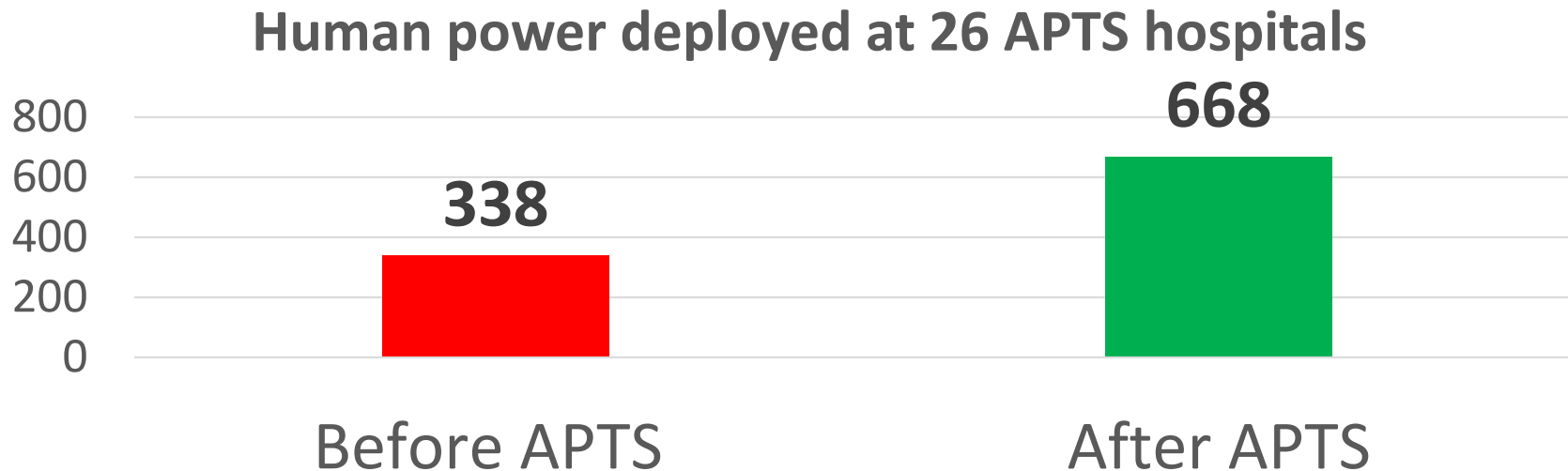- The data was collected & analyzed using MS Excel and SPSS v.23

Results-1

Due to APTS, proper human power deployment is now used to:

- Request medicines from store/supply chain

- Conduct accurate and fast PI

- Perform stock status analysis (SSA) and resource sharing (RS) from facility to facility

- Control products by bin ownership

- Increase medicine availability and reduce wastage

Results-2

- APTS was used to analyze the workload at all 26 sites and determine how many positions were needed to provide adequate service and perform SC responsibilities

- With this number in hand, and new APTS regulations and guidelines in place, the facilities achieved the following:

Human power deployed at 26 APTS hospitals

	Before APTS	After APTS
	338	668

Due to APTS, **100% of pharmacists graduated in Ethiopia are employed.**

Discussion - workload analysis

- APTS implementing hospitals now deploy HP based on workload analysis

- HP deployment factors in:
  - Number of dispensary counters
  - Quantity of medicines and shelves
  - Threshold for patients per day per pharmacist at outpatient pharmacy departments (OPD), which APTS establishes as max 48

- Due to APTS regulations on proper staffing, clinical pharmacies can only have 35 patients per day/ per pharmacist at primary HLs; 30 at general HLs; and 25 at special HLs.

Reference for APTS guidelines: Chapter 10: Pharmacy Service; guideline (google)

APTS has increased performance and satisfaction-
Metric: mothers carrying children from worst to the best sites

Satisfaction rate of interviewed patients and SC
workers showed improvement: from 51%
before APTS to **91-100%** after APTS

Read more: https://chemonics.com/impact-story/attention-to-detail/

Impact on supply chain performance

- After APTS, PI of dispensaries now ranges from 0.33 to 1 day

- Availability of medicines at APTS sites increased from 80% to 100%

- Store PI went from up to 16 days to 1-4 days

- Average wastage rate improved:
  - Before APTS < 5.1%
  - After APTS <2%
  - **Why?** HP deployment & bin ownership!

Attention to Detail

The hospitals that deployed human power by workload analysis used bin ownership principles for inventory

Read more here: https://chemonics.com/impact-story/attention-to-detail/

Lessons learned and next steps

APTS principles of proper human power (HP) deployment can:

1. Increase availability and reduce wastage rate
2. Bring best quality of service improve patient satisfaction

- Human power deployment based on workload analysis are very important

- Due to the assessment results, the APTS system will continue with much government support in the next years.

- And all regional states will continue to use evidence-based workforce deployment (using the approved directives/guides)

- The APTS system should be considered for expansion across Ethiopia and could even be considered for other countries --
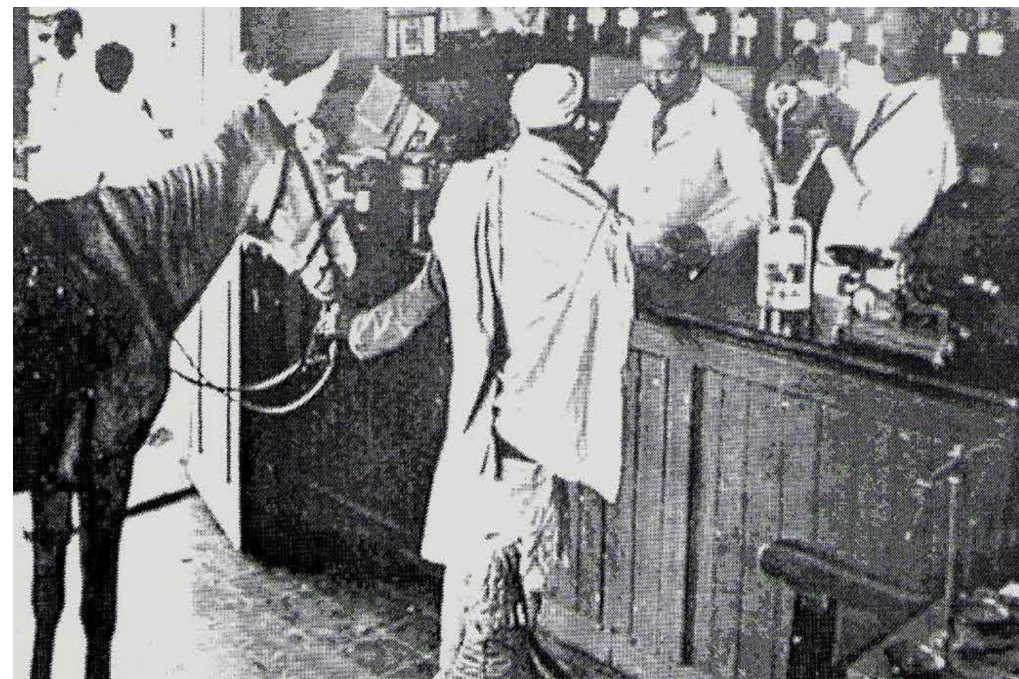
   In Africa? Europe? Americas? How?

APTS implementation inaugurations by MOH, RHB and GHSC-PSM (2019, 2020, 2021)

Ribbon-cutting by MOH and First Lady of Ethiopia

Inauguration of APTS

Pharmacy design, 100 years ago Addis Ababa, Ethiopia

Pharmacy design based on APTS principles in 2021