



**Global Health**  
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**ABSTRACT 84**

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# **ASSESSMENT OF SUPPLY CHAIN MANAGEMENT PRACTICES DURING HIV GUIDELINE TRANSITIONS: EVALUATION OF GHANA'S RECENT TRANSITION**

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# Outline

- Background
- Guideline Transition Challenges
- Methodology
- Findings
- Recommendations



# Background

## HIV Service Provision

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HIV service provision in Ghana started with the identification of its first case in 1986.

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A comprehensive HIV guideline to guide service provision was developed in 2002. This initial document has since undergone multiple revisions in response to the emergence of new scientific evidence.

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The most updated version of the ART guideline currently being implemented was developed in 2019. It recommends DTG-based and Lopinavir-based regimen as the first line, first options for adults and children less than 20kg, respectively.

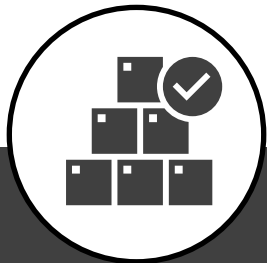
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HIV testing algorithm was reviewed in 2020 from a 2-tier to a 3-tier testing algorithm given Ghana has low (<5%) HIV prevalence.



# Background

## Ghana's HIV Supply Chain



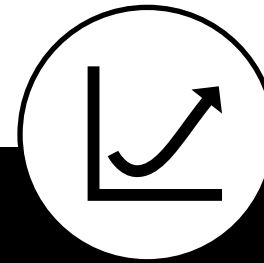
**01**

**HIV commodity management is integrated into the general mgt. of other commodities**



**02**

**HIV Commodities are typically procured from overseas. Shipments received at central warehouse shipped through RMSs to SDPs**



**03**

**Key reforms driving HIV commodity availability at SDPs include implementation of LMD, eLMIS, improved inventory management practices**

**Ghana's public health supply chain is guided by a master plan (SCMP 2021-2025) which provides strategy and direction**



# Guideline Transition Challenges

Several challenges have been documented to occur during guideline transitions in many LMICs including:

- lack of coordinated sensitization of clinicians and operational guidance for the intervention
- Interrupted supply of ARVs
- non-availability of data on actual consumption to estimate commodity demand
- Non-adherence to new guidelines especially during the initial phase of transitioning leading to delayed transitioning
- Lack of capacity building for service providers

**Ghana's recent treatment and testing guideline transitions were not devoid of these challenges**



# Methodology

We set out to assess the 2019/2020 HIV treatment and testing guideline transitions for their impact on Ghana's supply chain and document lessons learnt to inform future transitions.

## Mixed-Method

A mixed-method research approach (quantitative and qualitative) was used to elicit information on supply chain management challenges during the transitions.

## Separate process

The qualitative and quantitative methods were developed separately

## Triangulation

Results from both methods were triangulated to come out with consolidated findings.



# Key Findings

## 2019 ART Guideline Transition

- Majority of the ART facilities (97.8%) were aware of the guideline changes.
- 91.3% were trained prior to its implementation.
- All trainings (100%) included supply chain component.

## 2020 Testing Algorithm Transition

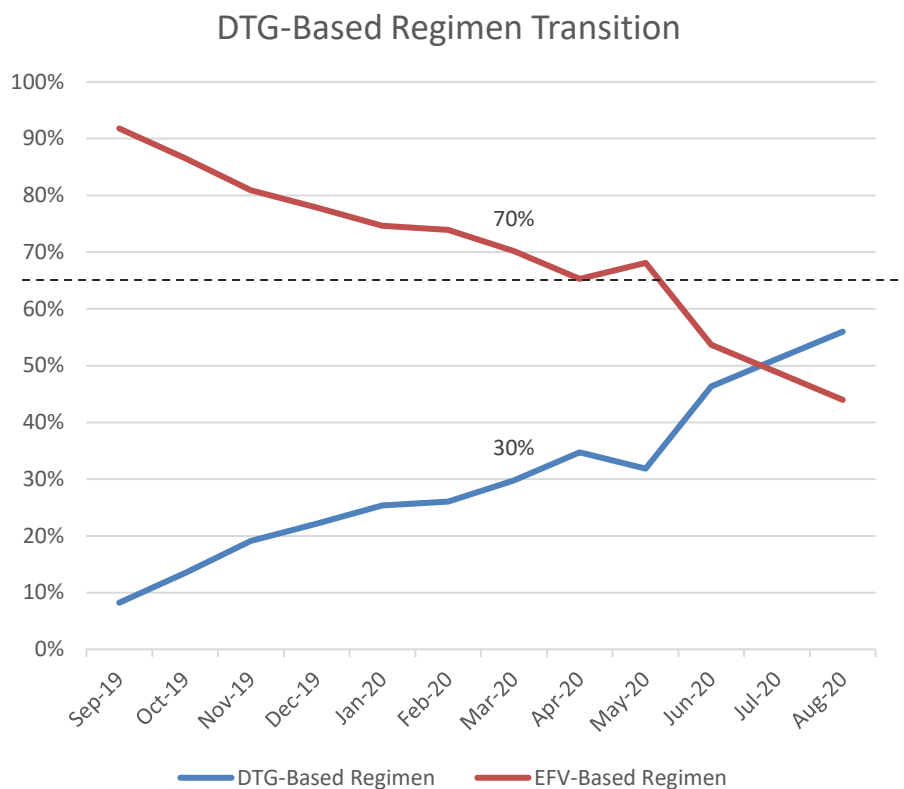
- 85% of facilities were aware of the new HIV testing algorithm.
- 68.7% of health facilities were trained prior to the implementation of the new testing algorithm.
- 79.0% of facilities were implementing the new testing algorithm.
- All trained facilities (100.0%) adhered to the new testing policy, whereas 5% of untrained facilities did not.





# Findings

## DTG-Based Regimen Transition



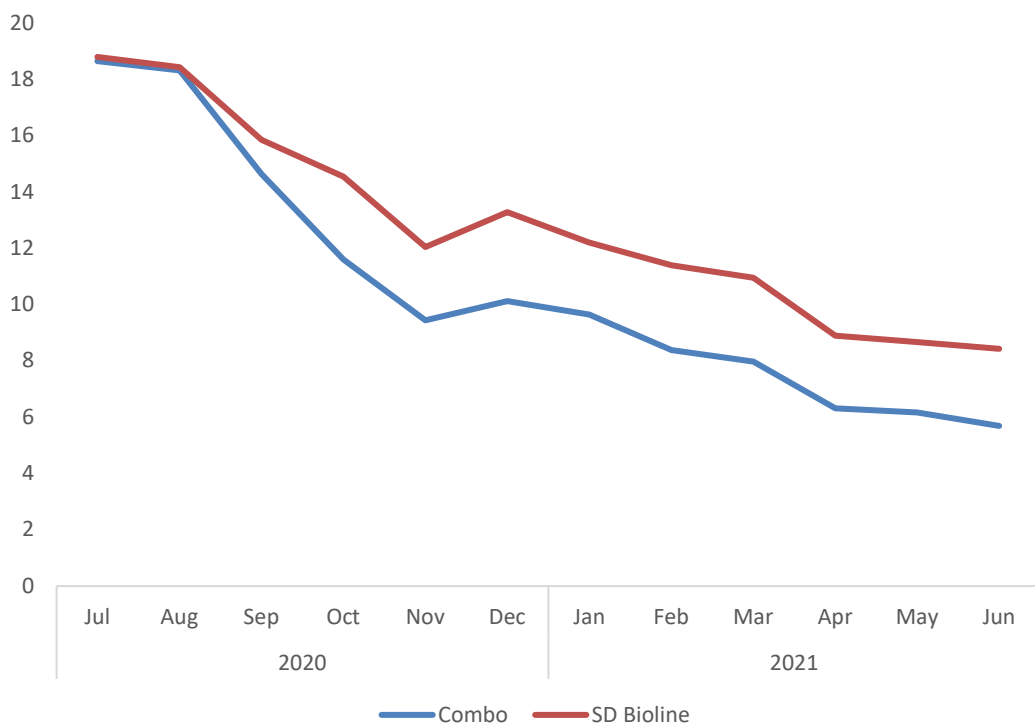
- Initial DTG-based regimen transitioning target was missed due to prescriber reluctance to transition clients and client apprehension.
- Delayed transitioning also due to low level of engagement especially of national level stakeholders at the initial stages of the transitioning.
- The lack of a documented transitioning plan with a TWG to monitor the transitioning process was also a contributory factor



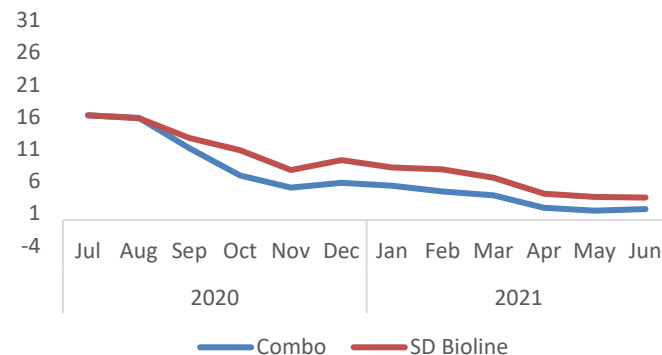
# Findings:

## Availability of Test Kits During Testing Algorithm Transitioning

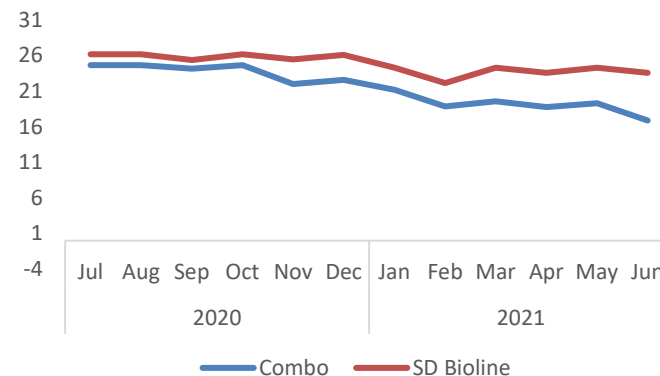
### Average Stock Out Days of Test Kits during Transitioning Period



### Trained Facilities



### Untrained Facilities



Training (with models in supply chain) of service providers improved the availability of HIV commodities at ART sites. Training, however, did not transcend to all levels of the supply chain to include RMS managers and central warehouse managers.



# Findings:

## Adult ARV Expiries During the Transitioning Period

Period	ABC + 3TC	DTG 50mg	EFV 600	Nev 200mg	TL	TLD	TLE	ADZ + 3TC	ADZ + 3TC + NEV
Sep-22	0	10	14	0	0	0	0	0	50
Oct-22	0	0	0	0	0	0	0	0	0
Nov-22	0	0	0	0	0	0	0	0	0
Dec-22	0	0	0	0	0	0	0	0	0
Jan-23	0	0	0	0	0	0	0	0	0
Feb-23	0	0	0	0	0	0	0	0	0
Mar-23	0	0	0	0	0	0	0	0	0
Apr-23	0	0	0	0	89	0	0	0	0
May-23	0	0	0	0	0	0	0	0	0
Jun-23	0	0	0	0	0	0	0	0	0
Jul-23	3	0	0	0	0	0	0	0	0
Aug-23	0	0	36	0	0	0	0	0	0
<b>Total</b>	<b>3</b>	<b>10</b>	<b>50</b>	<b>0</b>	<b>89</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>

Limited expiries of legacy ARVs associated with the transitioning process due to the slow transitioning to new regimen.



# Recommendations

## TRAINING

- Must be prioritized
- Wider coverage
- Multiple delivery modes

## MONITORING

- At least quarterly
- Including Medical stores
- Prompt remedial action

## INCREASED FOCUS

- More frequent stock monitoring
- Distribution/ Redistribution

## STAKEHOLDERS

- All must be engaged
- Costed implementation plan
- Frequent updates provided



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