

# Challenges Facing Pharma in Africa

Patrick Lukulay, Ph.D.

Founder & President, Technology Solutions for  
Global Health LLC

[phl@tech-4health.com](mailto:phl@tech-4health.com)

+1 734-644-0627/ +233540893338



# Background

- Highlight key challenges
- What has been done, being done and remains to be done to address these challenges
- Focus on one of the challenges which is the focus of my new organization: Technology Solutions for Global health LLC



Secondary Reference Standards (SRS)  
Traceable to major pharmacopeias standards  
Cost Effective, readily accessible  
Developed following international norms  
In collaboration with NMRA accredited labs



Partner with FreeThink Technologies, USA  
To establish product shelf life in less than 6 weeks  
Compared to the usual 6 months study @  
Accelerated conditions

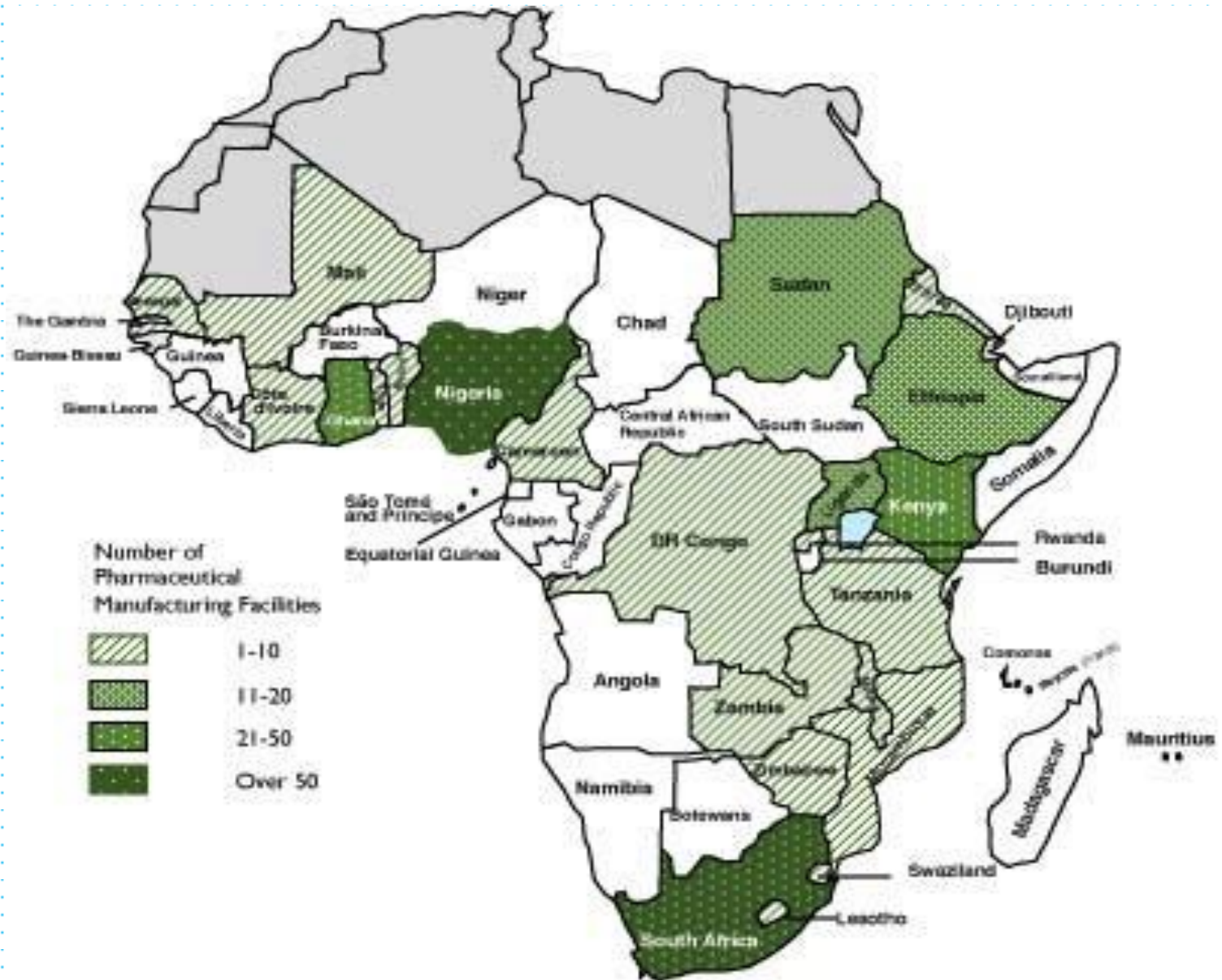


Develop technology platform in the form of  
APPS for the intelligent compilation of drug dossiers  
following CTD format

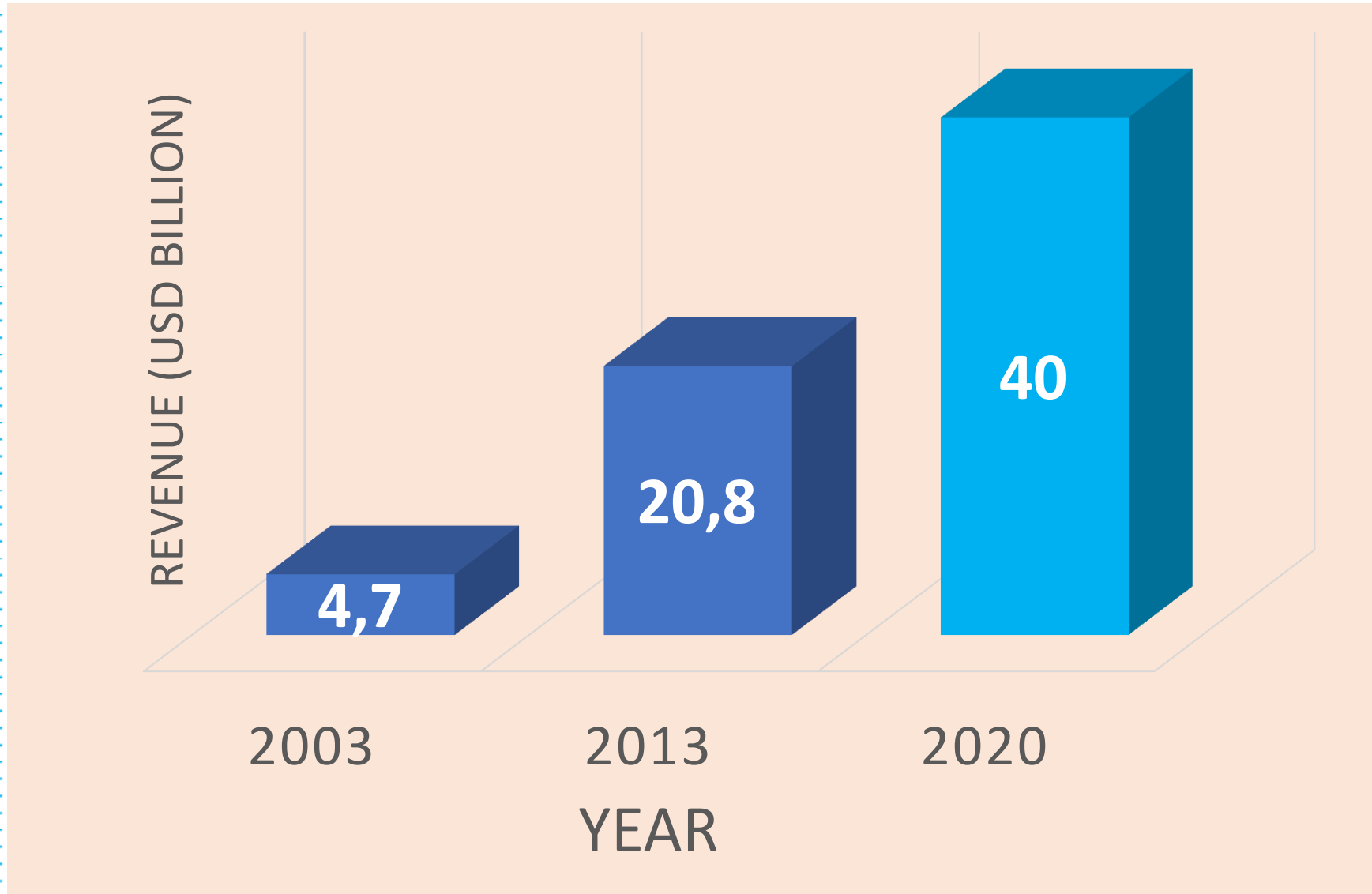
# Background

- ❑ Multinationals first setup Pharmaceutical facilities in SSA:
  - Kenya: 1930,
  - South Africa: 1935
  - Nigeria: 1945
- ❑ Indigenous companies appeared in 1960s
- ❑ Today, there are about 300 manufacturing facilities
  - Nigeria: 128
  - South Africa: 68
  - Kenya: 42
  - Ghana: :32
- ❑ Local companies account for only 30% of demand,

# Distribution of Pharma in SSA



# Pharma market growth in SSA



Cumulative Annual  
Growth rate: 9%  
Since 2013

# What is at stake

A well developed industry will be engine for economic development and improved health systems

Can meet national needs in times of emergency and epidemics and during stock out of imported medicines

# Challenges

## Poor Regulatory environment

- Desire to improve quality is driven by the regulatory regime
- Disparate regulatory requirements
- Uneven playing field

### Solution

- Harmonization of regulatory requirements to address the disparate regulatory requirements: AMRH Initiative
- Raise standards and enforce standards evenly



# Challenges cont.

## **Fragmented market and poor Patronage**

- Fragmented markets creates no economy of scale
- Left out of major procurement opportunities by development partners

Solution
<ul style="list-style-type: none"><li>• Regional economic communities creating regional markets</li><li>• Open market treaty discussions underway</li><li>• Local companies participating in international procurement</li></ul>

# Challenges cont.

## Lack of capital

- All the initiatives risk failing when there is lack of capital for the manufacturers to implement
- Without infusion of capital by Government, companies are not positioned to improve standards

Solution

- African Union- NEPAD initiative known as: Fund for African Pharmaceutical Development (FAP-D)
- Provide low interest loans with supporting Technical guidance

# Challenges cont.

## Lack of Technical Capacity

- Expertise for pharmaceutical manufacturing in a GMP compliant facility still being developed

Solution
<ul style="list-style-type: none"><li>• UNIDO; WAHO initiative to map company capacities and design program for technical assistance</li><li>• NEPAD: RCOE- Regional centers for regulatory excellence</li><li>• USP:USAID Initiative to improve GMP and support manufactures toward WHO PQ</li></ul>

# Challenges contd.

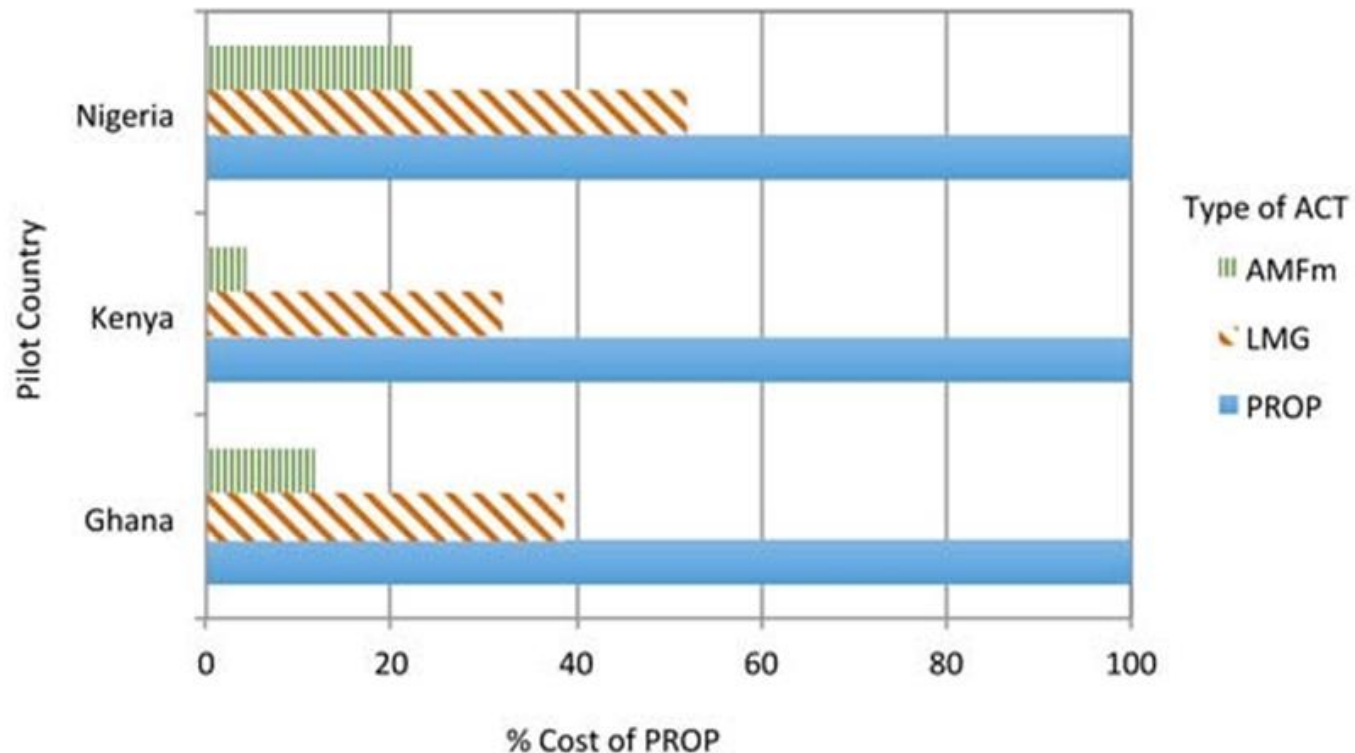
## **Inadequate Application of Business Principles**

- Lack of sound financial and business management principles
- Poor data on market size, demand and competition

# Challenges cont.

## Lack of Government support and poor vetting of initiatives

- High tariffs on API but low on finished products
- Poor vetting of initiatives- example AMFm



# Challenges cont.

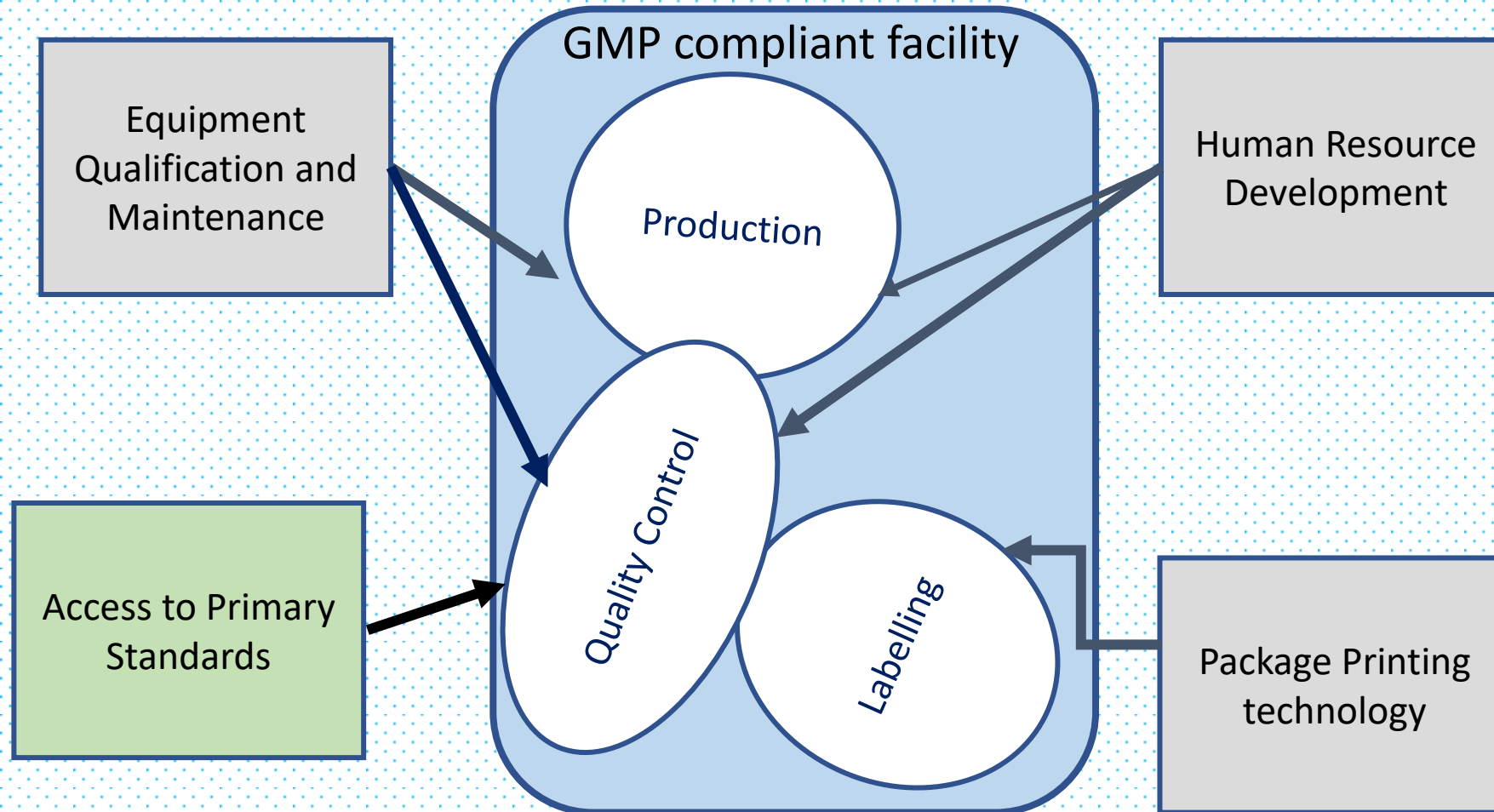
## **Lack of Auxiliary/Supporting Industries**

- Cost of doing business is prohibitive
- Timeliness doing business is problematic
- Cost of compliance is high

### Solution

- Domestication international norms: developing local capacity to comply
- Development of secondary standards
- Technology to speed up stability studies

# Lack of Supporting Industries



# Secondary Reference Standards Development

## **Affordability**

- Cost-effective
- Low shipping cost, or dangerous goods cost

## **Accessibility**

- Available locally and obtained readily as needed
- Procured with local currency

## **Quality-Assured**

- Traceable to USP, BP and International Pharmacopeia
- Follow WHO guidelines on development of secondary standards

## **Status Quo**

- In house standards used for quality control
- API used as standard to release finished product
- Skip batch testing



# Tech4Health Secondary Reference Standards



# Secondary Standards

<b>Secondary Standard</b>	<b>Traceability</b>
Paracetamol	BP
Artemether	Int. Pharm.
Lumifantrine	Int. Pharm
Trimethoprim	BP
Sulfamethoxazole	BP
Ciprofloxacin Hydrochloride	BP
Ibuprofen	BP
Metronidazole	BP
Diclofenac Sodium	BP
Albendazole	BP

# Comparison of QC test results using Primary and secondary standards

<b>Fixed Dose Combination Tablet</b>	<b>Analyzed Vs. Int. Pharm. Std. (% label claim)</b>	<b>Analyzed Vs. Tech4Health Std. (% Label claim)</b>
Artemether	95.8 %	95.7 %
Lumifantrine	94.9 %	95.0 %

# Conclusion

- The economic and health benefits of a robust pharmaceutical sector necessitates concerted efforts to address challenges
- Development of the industry must be accompanied by development of allied industries to support Pharma
- To make compliance sustainable, we must domesticate international norms by building capacity to comply rather than importing capacity to comply



[phl@tech-4health.com](mailto:phl@tech-4health.com)

+1 734-644-0627/ +233540893338