Africa Investors Trip

March 2014
Agenda

- Africa market
- Regions in focus
- Market Needs in Africa
- Options for Market growth
- Challenges ad Opportunities
- Imperial Health Sciences
Distribution Realities In Africa

- “Lions on the Move” - GDP growth > 5% ... pharma even higher
- Trading block and language driven economics
- Cross border delays, in & outbound
- Traditional product supply lanes exist for Francophone, Lusophone
- Compliance ... esp Zone III / Zone IV limitations
- Governance – internal and environmental
- Legacy contracts and multiple partners
- 2nd largest continent - 2nd most populous - 1.1 Bn people
- 55 countries - 15% of world’s population - 50% < 19 years old
- GDP $2.2T (projected $29T by 2050)
- 50 NDRAs
The Growth Opportunity Is Material ...

By 2020, more than half of African households will have discretionary spending power

<table>
<thead>
<tr>
<th>Share of households in each income bracket (%)</th>
<th>Millions of households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discretionary income</td>
<td></td>
</tr>
<tr>
<td>Global's (&gt;$20,000)</td>
<td>6</td>
</tr>
<tr>
<td>Consuming middle class (10,000–20,000)</td>
<td>8</td>
</tr>
<tr>
<td>Emerging consumers (5,000–10,000)</td>
<td>12</td>
</tr>
<tr>
<td>Basic consumer needs (2,000–5,000)</td>
<td>29</td>
</tr>
<tr>
<td>Destitute (&lt;2,000)</td>
<td>34</td>
</tr>
</tbody>
</table>

- 2020 – 18.6m diabetics
- 1m new cancer pts pa
- 60m hypertensive patients

Emerging transport corridors
- 2025 - 25% growth in urban pop
- 3.4% pa
- 2030 - > 60yrs population doubles
- 2050 - 60% urbanised

“Value for Many” replaces “Value for Money”
Rising Stars in SSA

**Morocco**
- 2011 Sales: $1.2B
- ‘11 - ’16 CAGR: 6%

**Algeria**
- 2011 Sales: $2.8B
- ‘11 - ’16 CAGR: 9%

**Egypt**
- 2011 Sales: $3.0B
- ‘11 - ’16 CAGR: 14%

**Nigeria**
- 2011 Sales: $1.8B
- ‘11 - ’16 CAGR: 13%

**Kenya**
- 2011 Sales: $659M
- ‘11 - ’16 CAGR: 17%

**Botswana**
- 2011 Sales: $56M
- ‘11 - ’16 CAGR: 12%

**South Africa**
- 2011 Sales: $3.7B
- ‘11 - ’16 CAGR: 8%

Sources: IMS Health Market Prognosis, Sept 2012
African Markets

- Rapid growth expected until 2020 at circa 10% CAGR
- Fuelled by increasing healthcare expenditure and NCDs
- > 50 pharmaceutical manufacturers - 20% local - 80% MNCs
- 4 major groups - MNCs, Chinese, Indian, Northern and Southern Africa
- Most imports from India, Switzerland, UK, SA and France
- Manufacturing relies on imports - 95% of raw materials imported
- Changing focus of MoH and Donors / NGOs
- Antibiotics, analgesics, and antihistamines dominate
- Poverty encourages prevalence of counterfeit drugs
- Self-medication raises prospects for OTCs
- Rising health insurance numbers underpin future growth
East Africa

- Kenya market 2013 circa 642M USD
  - Patented drugs = 9%
  - Generic drugs = 63%
  - OTC = 28%

- Kenya comprises circa 80% of regional volumes

- Exports (Tanzania, Uganda, Sudan and Somalia) CAGR = 18%

- Untapped sales in adjacent countries
  - Limited distributor funding
  - Stock outs
  - Lead times

- Uganda growth estimated at 27%

- Ethiopia generic growth with Chinese partnerships
## West Africa

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Ghana</td>
<td>233</td>
<td>468</td>
<td>536</td>
<td>607</td>
<td>682</td>
<td>841</td>
<td>15%</td>
<td>12%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>606</td>
<td>1,137</td>
<td>1,255</td>
<td>1,405</td>
<td>1,585</td>
<td>2,086</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>159</td>
<td>199</td>
<td>215</td>
<td>232</td>
<td>250</td>
<td>292</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Senegal</td>
<td>144</td>
<td>173</td>
<td>181</td>
<td>189</td>
<td>196</td>
<td>211</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Cameroon</td>
<td>84</td>
<td>120</td>
<td>130</td>
<td>137</td>
<td>144</td>
<td>159</td>
<td>7%</td>
<td>6%</td>
</tr>
</tbody>
</table>

What shape is the curve ... and where are we on it?
Needs? 1 - Regulatory Harmonization

- AU Decision 55 - Abuja Summit January 2005
- Mandated AU commission to develop Pharmaceutical Manufacturing Plan for Africa (PMPA)
- Drug regulation harmonization is a key component of PMPA
- AMRH established in Feb 2009 through NEPAD
- Implementation through RECs with support of:
  - African Union Commission, Pan African Parliament
  - WHO, World Bank
  - Gates Foundation, Clinton Foundation
  - DFID, UNAIDS ... USAID
Aims

– Reduce 50 NDRAs to 5-6 regional groups
– Harmonize registration, technical documentation, procedures & decision making processes
– Reduce time taken to issue market authorization
– Improve transparency

NEPAD conference “Building partnerships for Sustainable Capacity Development on Medicines Regulation in Africa” - Dec 2013, SA

EAC drugs regulation and harmonization programme officially launched March 2012 in Arusha, Tanzania

Tanzania, Kenya, Rwanda, Uganda, Burundi and Zanzibar
The Case Of EAC

- Established constitutional tools and technical outlines on implementation - currently in circulation for comments/edits
- Each country has been given specific tasks
- Common technical documents with joint reviews and decisions
- Each country maintains sovereignty of legislature, fees etc.
- Joint pilot in 2010
  - Abacavir & Amikacin submitted to WHO PQP & EAC NDRAs
  - Joint review in Copenhagen
  - Products were prequalified and registered simultaneously

N.B Harmonization is not the same as mutual recognition!
Needs?  2 = Local Manufacture

- National vs Donor influence
- Health as an electoral issue
- Health as a macroeconomic issue
- Level playing field?
- At least REGIONAL collaboration
- India and China’s labour costs?
- API before goods finishing?

### IMPORTS (1 to 10)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>[R million]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>India</td>
<td>1,847</td>
</tr>
<tr>
<td>2</td>
<td>Germany</td>
<td>1,408</td>
</tr>
<tr>
<td>3</td>
<td>UK</td>
<td>1,294</td>
</tr>
<tr>
<td>4</td>
<td>France</td>
<td>1,204</td>
</tr>
<tr>
<td>5</td>
<td>Italy</td>
<td>1,113</td>
</tr>
<tr>
<td>6</td>
<td>USA</td>
<td>995</td>
</tr>
<tr>
<td>7</td>
<td>Switzerland</td>
<td>581</td>
</tr>
<tr>
<td>8</td>
<td>Sweden</td>
<td>551</td>
</tr>
<tr>
<td>9</td>
<td>Ireland</td>
<td>450</td>
</tr>
<tr>
<td>10</td>
<td>Belgium</td>
<td>376</td>
</tr>
</tbody>
</table>

Ref: Andre Kudlinski, Department of Trade and Industry (DTI): The SA Pharmaceutical Sector
A myriad of middle-men
  - First line buyers (FLBs) - Push up the cost of products
  - Local distributors - Established logistics

> 75% of the private sector is not fully regulated

> 75% of private pharmacies are in urban / semi-urban settings

Most transport outsourced ... and poor in reach and service

Order – delivery lead time and frequency drive working capital
Needs?  4 = Wholesaler Development

- Natural oligopoly
  - US – 3 = 85%
  - UK – 3 = 65%
  - Germany – 4 = 75%

- The Cs of Success
  - Capacity
  - Capability
  - Compliance
  - Conduct
  - Catalogue
  - Competition
  - Credit
  - Customers
Needs? 5 - Matching Responsibility & Capacity

<table>
<thead>
<tr>
<th>LOW VOLUME / RELIABILITY SUPPLIERS</th>
<th>HIGH VOLUME / RELIABILITY SUPPLIERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS - 30% Stock from small suppliers (or infrequent delivery) AND to consolidate stock for small volume clinics.</td>
<td>Direct Delivery - 30% Full truck load product volume.</td>
</tr>
<tr>
<td>Cross-Docking - 40% Reduce handling of bulk goods and reduce the workload for CMS operational and administrative functions.</td>
<td>Determined on a case-by-case basis.</td>
</tr>
</tbody>
</table>

7 Top suppliers x 27 Major hospitals = 70% ! Of volumes
The New Options For Market Growth ...

“Get me there”

“Sell my product”

“Build my Brand”

KEY REQUIREMENT

3PL

Stock Purchase Model

Distributor / Agency

CRITICAL SUCCESS FACTORS

- Minimal touch points
- Efficiency and competency
- Consistent service delivery
- Quality of Infrastructure
- Network reach
- Visibility and control

- Reach/universe
- Seamless flow
- Strategic future fit
- Market intel/understanding
- Resource/asset productivity

- Quality
- Distribution
- Value
- Price
- Promotion
- Presence
- Feet on the ground

Leverage

Partner

Acquire
Challenges And Opportunities

- By 2016, pharma in Africa reaches US$30 Bn
- Driven by 10% CAGR
- US$45 Bn by 2020
- Potential of adjacent markets
- Market reach – owned or through trading partner
- Lead times vs in-country stock
- Late nationalisation

- Regulations
- Language and trading blocks
- Cross border
- Compliance of facilities
- Acquiring / retaining talent
- State tenders
- Counterfeit products
- Brand activation demands
  - Reach
  - Need
## Top 50 Global 3PLs

<table>
<thead>
<tr>
<th>2012 Rank</th>
<th>Third-Party Logistics Provider (3PL)</th>
<th>Gross Logistics Revenue (US$ Millions)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DHL Supply Chain &amp; Global Forwarding</td>
<td>31,639</td>
</tr>
<tr>
<td>2</td>
<td>Kuehne + Nagel</td>
<td>22,141</td>
</tr>
<tr>
<td>3</td>
<td>Nippon Express</td>
<td>20,321</td>
</tr>
<tr>
<td>4</td>
<td>DB Schenker Logistics</td>
<td>19,789</td>
</tr>
<tr>
<td>5</td>
<td>C.H. Robinson Worldwide</td>
<td>11,359</td>
</tr>
<tr>
<td>6</td>
<td>Hyundai GLOVIS</td>
<td>9,832</td>
</tr>
<tr>
<td>7</td>
<td>CEVA Logistics</td>
<td>9,290</td>
</tr>
<tr>
<td>8</td>
<td>UPS Supply Chain Solutions</td>
<td>9,147</td>
</tr>
<tr>
<td>9</td>
<td>DSV</td>
<td>7,759</td>
</tr>
<tr>
<td>10</td>
<td>Sinotrans</td>
<td>7,523</td>
</tr>
<tr>
<td>11</td>
<td>Panalpina</td>
<td>7,060</td>
</tr>
<tr>
<td>12</td>
<td>SDV (Bolloré Group)</td>
<td>7,038</td>
</tr>
<tr>
<td>13</td>
<td>Toll Holdings</td>
<td>6,760</td>
</tr>
<tr>
<td>14</td>
<td>Expeditors International of Washington</td>
<td>5,981</td>
</tr>
<tr>
<td>15</td>
<td>Geodis</td>
<td>5,868</td>
</tr>
<tr>
<td>16</td>
<td>DACHSER</td>
<td>5,670</td>
</tr>
<tr>
<td>17</td>
<td>GEFCO</td>
<td>5,267</td>
</tr>
<tr>
<td>18</td>
<td>UTI Worldwide</td>
<td>4,608</td>
</tr>
<tr>
<td>19</td>
<td>Agility</td>
<td>4,605</td>
</tr>
<tr>
<td>20</td>
<td>IMPERIAL Logistics</td>
<td><strong>3,800</strong></td>
</tr>
<tr>
<td>21</td>
<td>Hellmann Worldwide Logistics</td>
<td>3,593</td>
</tr>
<tr>
<td>22</td>
<td>Yusen Logistics</td>
<td>3,526</td>
</tr>
<tr>
<td>23</td>
<td>Damco</td>
<td>3,272</td>
</tr>
<tr>
<td>24</td>
<td>Kintetsu World Express</td>
<td>3,155</td>
</tr>
<tr>
<td>25</td>
<td>Hub Group</td>
<td>3,124</td>
</tr>
</tbody>
</table>

*Revenues are company reported or A&A estimates and have been converted to US$ using the annual average exchange rate.

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Imperial ... Africa’s Global Player
IHS ... Our Values And Pillars of Excellence

**Values**

- **Pride**
  - Sustainability
  - Corporate stability
  - Independence

- **Execution**
  - Flexibility
  - “Can Do” response
  - Responding to Africa

- **Appreciation**
  - Placing our clients *FIRST*
  - Performance management

- **Respect**
  - Innovation – EUC, Unjani
  - Debt collection
  - Security

**Pillars Of Excellence**

- **People**
  - Multi-tiered development
  - Management stability – Ave 7 years
  - Thought leadership – CCF, PLASA, PtD, Rx360, PCMA, PHEF

- **Quality**
  - ISO 9001:2008
  - Cold chain

- **Reach**
  - Geography – pan-SSA
  - Channels – FMCH / veterinary care
  - Models of channel management

- **Service**
  - Delivery performance
  - Flexibility
  - MediQ
Provides **end-to-end** supply chain solutions including:

- FCL consolidation ex Europe
- Inbound Freight Management
- Warehousing
- Order Management
- Secondary Repackaging
- Kitting
- Outbound Distribution
- Customer Services
- 3PL, Stock Purchasing Model or Distributor
- Debtor management
- Reverse logistics
- Cold chain specialists
- Infrastructure deployment
- Health system strengthening
  - Consulting & training
Imperial’s Current Footprint

- Infrastructure in 13 countries
- Cross border deliveries in 18 more
- 674 vehicles
- > 75 regional and local warehouses
- Planned capex
- $150m in healthcare acquisitions in 18 months
- In development
  - Beira Corridor
  - DCs in Beira and Lusaka
  - Kenya hub and Lagos hub & Kampala.
- Recent Acquisitions: WWCVL and MDS
IHS Client Base

Pharmaceutical Companies
Medicines, Vaccines, Consumer Healthcare Products

PEPFAR
(USG HIV Program in Africa)

THE
GLOBAL
FUND
(MPP Program)

NDoH
SOUTH
AFRICA

PPP – Public Private Partnerships
South Africa - Centurion

- Warehouse 32,000 m²
- 22,500 pallet spaces
- 1,100 cold room locations

- Transportation
  - Local: own vehicles
  - Export: own & contractors

- Facility
  - GDP compliant
  - ISO 9001:2008 certified
  - SA’s only bonded facility
IHS SA - Centurion
South Africa – Cape Town

- Warehouse 7,500 m²
- 8,092 pallet spaces
- 504 cold room locations

- Transportation
  - Local: own vehicles
  - Export: own & contractors

- Facility
  - GDP compliant
  - ISO 9001:2008 certified
  - Greening/Sustainability initiatives employed
Kenya - Nairobi

- Current warehouse 7,000m²
  - 6,800 pallet spaces
  - 100 cold room
  - 20 dangerous goods
  - High risk / High value area

- 2015 new WH 10,000m²

- Transportation
  - Local owned
  - Ntl / Export - contractors

- Facility
  - GDP compliant
  - ISO 9001:2008 certified

- MIS
  - SAP, CRM, SLE / TIMS, MEDiQ
IHS – Nairobi, Kenya
Ghana - Tema
- Warehouse 2,300m²
  - 2,550 pallet spaces
  - 40 cold room
  - 20 dangerous goods
  - High risk / High value area
- Transportation
  - Export
- Facility
  - GDP compliant
  - ISO 9001:2008 in Q2 12
- Bonded

Nigeria - Abuja
- Shared facility 1800m²
  - 1600 pallet spaces
- **Nigeria - Lagos [in planning]**
- MIS
  - SAP, CRM, SLE/TIMS, MEDiQ
IHS – Accra, Ghana
Malawi – Lilongwe

- Warehouse 2,000m²
  - 1250 pallet spaces
  - High risk / High value area
- Transportation
  - Domestic 667 sites.
- Facility
  - GDP compliant
- MIS
  - SAP, CRM, SLE/TIMS, MEDiQ
IHS- Malawi, Lilongwe Facility
Excellence – Service Delivery, Security, Standards

- Service levels to be managed proactively - High Level Client Care
- Trending, root cause analysis and prompt corrective action
- Client queries managed through the High Level Client Care team are addressed within an hour
- IHS Service levels over the last 6 months – **98.11%**
- “Eyes of the customer” – measures customers experience of service levels - assist clients with customer perception
Excellence – Cold Chain

- Validated to WHO guidelines & PDA technical report 39
- Validation methodology published in SA Pharmacy Journal
- Validation audited and approved by our multi-national clients
- Controlled processes
- Pan-SSA
- Thought leadership
- EU Consolidation
- ORTIA re-icing
Excellence – Innovation

EUROPEAN CONSOLIDATION

Serialisation & Authentication with Trustatag

MoH Control Tower

Unjani Clinics

FACILITY → SUPPLIER
Order
Confirm
Order & Pay

CROSS DOCK

Validate

Sort & transfer

Deliver
Excellence – Sustainability

B-BBEE is a strategic imperative

- **Level 3** contributor with **Value Add Supplier** Status
- **137.5%** Procurement Spend Recognition

**Environmental Impact**

- Reduced consumption of electricity by **8.13%** in 2013
- Cape Town facility uses environmentally responsible and resource-efficient principles:
  - LED lighting and motion sensors
  - Thermo-painted with shield coating
- Reduced waste generated from operations by **70%** in 2013
- Water recycling in Centurion saves +/- **10 000 L** per day
Africa’s Leading Healthcare Logistics Partners