Enhancing the capabilities of pharmaceutical firms for economic transformation and better health care in Tanzania: What will it take?

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The study: Industrial productivity and health sector performance

Collaborative ESRC-funded research project between:

- REPOA, Tanzania
- African Centre for Technology Studies (ACTS), Kenya
- The Open University (OU), UK

Aim of the study:

To identify opportunities for improved local industrial supply of pharmaceuticals and other essential health commodities to strengthen health systems performance while contributing to industrial development.

Introduction: Health and industrial development

- Industrial development requires innovative manufacturing: rising supply capacity, innovations, moving up the technology ladder;
- It requires interaction between skills and innovations through knowledge-producing institutions : education, training, research;
- Industrial production of health supplies can then improve health care, which is necessary for a healthy, productive population.

Introduction: Importance of access to medicines

- Medicines are essential for good health
- Local production can enhance access to medicines: In Tanzania evidence suggest urban bias for imported medicines, with locally produced medicines equally likely to be found in urban and rural areas (Mujinja et al. 2014).
- Good health raises human capital levels and therefore the economic productivity of individuals and a country's economic growth.
- Workforce productivity increase through, among other things: reduced incapacity, reduced number of days lost for sick leave, increased levels of schooling and scholastic performance,.

Health sector supplies problems continue

- Availability of tracer essential medicines on day of visit (2012/2013) in public hospitals, and public health centres and dispensaries was 80% and 58% respectively.
- Frequently missing items included anti-haemorrhage medicines for maternity care, and basics including gloves, syringes and disinfectant.
- Shortages in health facilities mean reliance on drug shops for access to medicines (out-of-pocket spending)

Shortages worsen ill health and poverty

- Out-of-pocket purchase of medicines worsens impoverishment.
- In Tanzania patients rely heavily on drug shops for access to medicines.
- Total supplies available have expanded through rising imports but access remains a challenge.

How can integrating improved access with industrial development be best achieved?

The solution is not just better health-industry policy collaboration, though this is needed.

The real challenge is innovation and transformation in both sectors, to allow then to work together :

- Structural transformation in health sector to sharply reduce reliance on OOP purchase by patients;
- Transformation in procurement incentives and management to improve local supply chains;
- Industrial innovation and investment to serve population needs better.

Industrially, the health market expansion is an opportunity not being seized

The East African health supplies market is large and expanding, but is not benefitting locally based manufacturers as it might. In pharmaceuticals:

- Kenya is the leading COMESA pharmaceutical producer, with ~50% of regional production and rising exports, yet supplies just 25% of the Kenyan market and only 0.2-0.3% of the COMESA market;
- Tanzania supplies a declining share of its own domestic medicines market, down from 35% in 2009 to less than 20% today, and exports are flat-lining.

Pharmaceutical manufacturing: Market share of local firms falling in a fast-expanding market

2013 : pharmaceuticals, medical supplies and equipment, medical furniture

- Imports : over USD 350 million;
- Exports : USD 3.3 million

(No industrial survey available after 2009.)

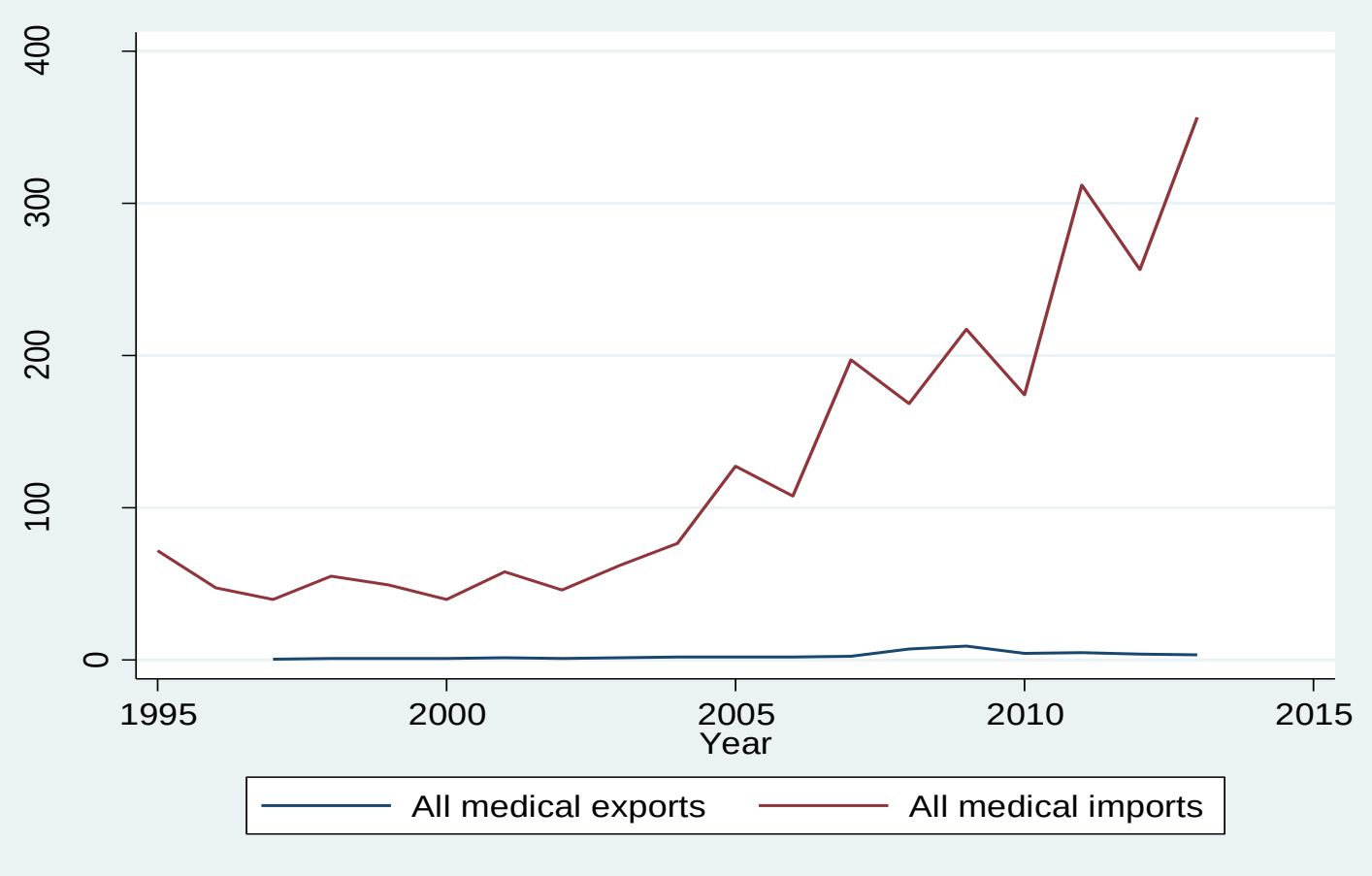
2009 : pharmaceuticals alone:

- Imports : USD 99.4 million
- Exports : USD 7.9 million
- Local production: of pharmaceuticals: USD 48.5 million
- **Local share** of domestic market = local production / (imports + local production – exports) = **approx. 35%**

Local market share of pharmaceuticals has been falling since 2009, but successful developments include successful local production and supply of insecticide-treated bed nets.

The Health Sector Market Opportunity

Sharply rising demand currently being met by imports.



WHO/HAI survey data confirms fall in local market share of pharmaceuticals

Year	Percent of sample medicines available, by country of origin			
	Tanzania	Kenya	Other	Total
2006	33	14	53	100
2009	21	13	66	100
2012	12	11	78	100

Data supplied by Mary Justin-Temu.

2007, 8 firms producing medicines in Tanzania;
2014, 5 firms .
2009 75% of amoxicillin tablets locally produced;
2012 13%.

Local Manufacturers Can Supply More

Demand includes :

- Medicines and other pharmaceutical items such as diagnostic test kits;
- Medical supplies, such as syringes and needles, gloves and cotton wool, infection control items;
- Medical equipment such as microscopes, blood pressure machines, glucometers.
- Laboratory supplies such as reagents and slides
- Basics: infection control items e.g. disinfectants; bed nets, bed sheets, medical furniture.

Currently local supplies mainly essential medicines and basics such as cleaning materials.

Why the declining local share of the medicines market?

The study found the following factors that have contributed to the decline:

- Rising barriers to market entry for local firms
- Increasing import price competition
- Worsening power and infrastructure constraints
- A tightening skills constraint
- Duties and tariffs incentivise imports
- Continuing registration delays
- Local procurement relationships weakening
- Lack of the active public sector support available in competing countries

Suppliers of medicines and other supplies face common challenges

Suppliers are technologically diverse, but all face:

- Importance of quality standards for market access;
- Constant upgrading required to meet competitive and regulatory standards;
- Price-based competition from imports, some subsidised in country of origin;
- Staff with low education, competition for skilled staff;
- Low quality and availability of locally made inputs;
- Tax/duty regime exempting final products from tax, while not all inputs are tax-free;
- Public procurement regime that is import-focused;
- Private wholesale market with strong import focus;
- Mixed public perceptions of local product quality.

Transformations needed in the health sector to link up to better industrial supply

- Better access requires a much lower proportion of medicines to be bought in private shops;
- More access needs to be free or at very low cost, implying more public and NGO/FBO purchasing;
- Access needs to be increasingly associated with proper diagnosis and dispensing;

All of which implies more and more reliable public and donor funding for the whole range of essential medicines and supplies, including antibiotics and chronic disease medicines, gloves and test kits.

Changes needed in procurement:

Reducing barriers to entry for local firms, by revising:

- Private sector importer/wholesaler incentives and challenging business links with overseas exporters;
- Public procurement rules and practices : trade credit, tender size, contract length and structure, payment reliability, accreditation of suppliers, decision rules;
- Role of NGO/non-profit/FBO wholesalers, and pattern of wholesale competition;
- Preferences of donors for large overseas orders, and role of donors in setting procurement systems and fragmenting supply chains;
- Involvement of local procurement officers and clinicians in supply chain design.

Firms' needs to provide better industrial supply

All firms interviewed were constantly upgrading to meet competition and regulatory rules. Requirements for supplying more of the expanding market:

- Investment in process and product improvement
- Improving supply times and reliability;
- Improving local marketing and distribution;
- Incentivising improvements in upstream input suppliers
- Making accessible new product investment e.g. labour intensive assembly, lower technology start-ups;
- Identifying scope for moving up technological ladder, including moves into active pharmaceutical ingredients (API) production;
- Improving supply offer for donor-financed markets.

Industrial policy changes required

- Revision of taxes and duties to incentivise local production over imports;
- List of products for local supply only, and criteria for retaining or removing items;
- Work with donors to support step-up in technological capabilities of local firms;
- Public pricing policies that ensure local supply can be profitable for basic items, given infrastructure weaknesses and dumping episodes;
- Strategic investments in technical training and support for firms that train effectively;

Generating mutually supportive improvement in health system, industrial output and government/regulatory capabilities

It can be done.

Current interactions generate much exclusion from care alongside very high import dependence.

All firms rely on domestic market for core business.

The need is for a virtuous circle in the domestic economy where each element contributes to mutually reinforcing improvement in capabilities.

Discussion should focus on kick-starting these virtuous interactions.

Acknowledgements, disclaimer, further reading

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