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Health as a Productive Sector

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Making Industrialization Work for Socio-economic Transformation

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

Research team members: Tanzania: Paula Tibandebage, Samuel Wangwe, Caroline Israel, Phares GM Mujinja, Edwin Mhede. UK: Maureen Mackintosh, Roberto Simonetti.

Research question:

Can improved local supply of medicines and other health sector requirements strengthen health system performance while contributing to industrial development?

Sources and Methods

2012-13 Health sector supply chain study:

- Sample of 42 facilities and shops, in 4 districts, in 3 regions
- Semi-structured interviews on procurement experiences; quantitative data collection on sources and availability of tracer medicines and supplies

2013-14 Manufacturing and wholesaling study:

- Interviews with all 5 active pharmaceutical manufacturers, and 7 other health related manufacturing firms
- Wholesaler and other key stakeholder interviews

Document searches on health sector size and financing and industrial activity.

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Economic and Social Impact of Health Care

Three routes by which a productive health sector creates beneficial social and economic impact:

1. Improving health status through good health care contributes to a more capable, energetic, skilled and productive workforce;
2. Government spending on health has a multiplier effect on domestic demand, and the sector also attracts aid funding;
3. Industrial impact: a major purchaser of goods and services, so health-related procurement creates incentives for suppliers and opens up industrial investment opportunities.

Economic Importance of the Health Sector

Indicator and units	Year	Health	National or total	Health %
Health sector value added/ GDP current market prices (million Tshs)	2012	737,964	44,717,663	1.7
Mean health spending / mean household consumption expenditure (Tshs/month)	2011/12	8,021	258,751	3.1
Mean health spending / mean non-food household consumption expenditure (Tshs/month)	2011/12	8,021	115,239	7.0
Total health spending /nominal GDP (Tshs million/year)	2009/10	2,322,927	28,213,000	8.2
Total health spending /GNI (US$/head PPP basis)	2012	117	1650	7.1
Health service employees / total regular employment	2013	70,244	1,547,337	4.5
Health + pharmaceutical + ADDO & pharmacy employees (estimate)/ total regular employment	2013	81,435	1,547,337	5.3

Health-Related Employment

Sector of Regular Employment	**2013**
Public sector health care	54,627
FBO/NGO health care	14,070
Private health care	1,547
Pharmaceutical production	1,293
ADDOs and pharmacies (estimate)	16,493*
Other health related production (indicative guess)	1,000
Total	**89,030**

* 2016 data.

Underestimate of total employees: regular employment only.

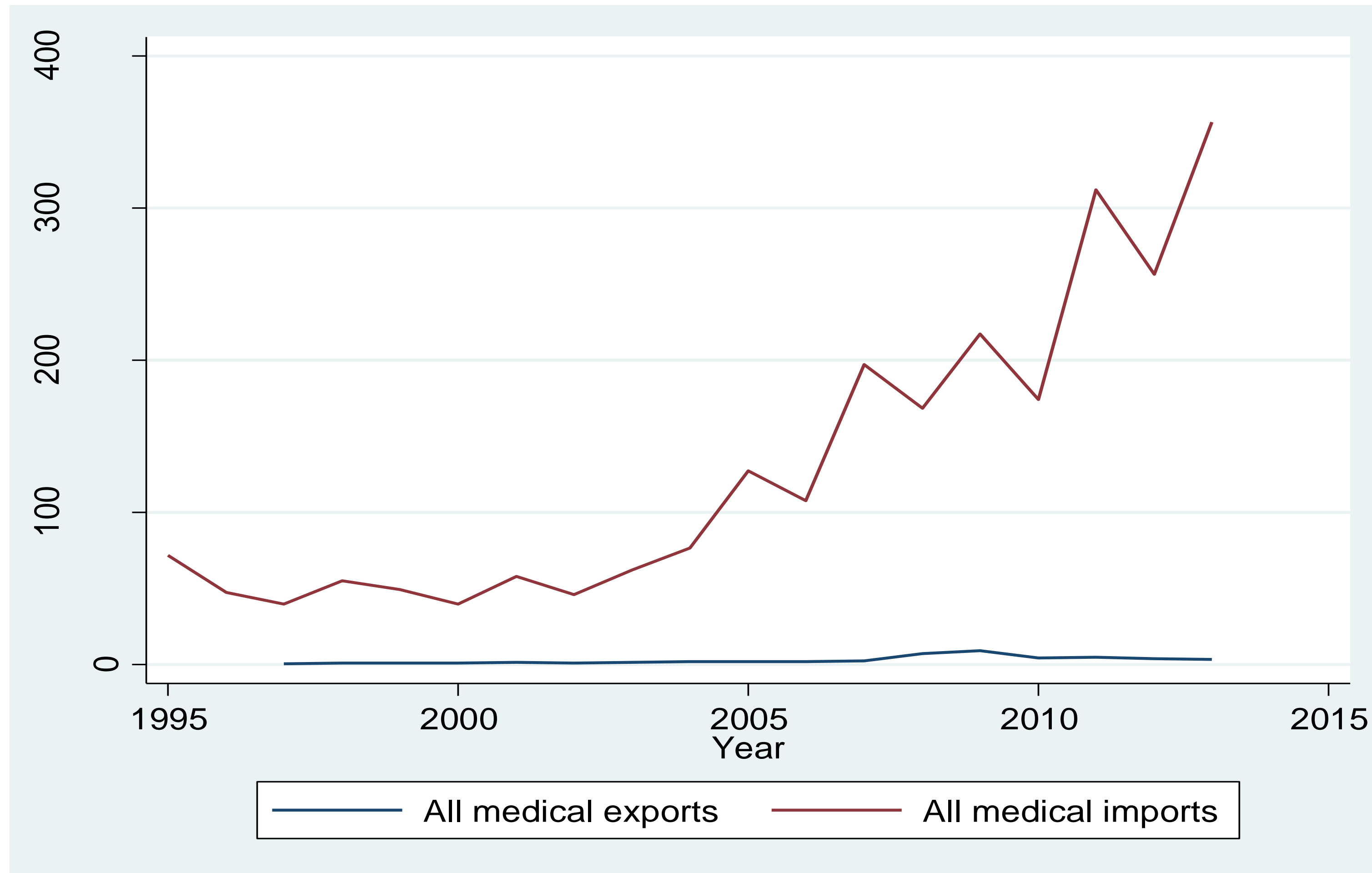
Sector Linkages: Missed Opportunity for Mutual Health/Industrial Benefit

Health-related procurement and wholesale private demand creates linkages between health services and the manufacturers of health-related products.

However, the output and the share of local manufacturers in the health market has fallen sharply. These are data for pharmaceuticals :

Country and year Tanzania	(1) Imports (USD m)	(2) Exports (USD m)	(3) Local production (USD m)	Local market share 3/(1-2+3)(%)
2009	99.4	7.9	49.2	35
2013	286.1	1.7	48.7	15

The scale of the missed manufacturing opportunity



The Intellectual and Policy Challenge

- A major reason for poor health sector performance in low and lower middle income African countries, such as Tanzania, is chronic shortage of supplies.
- Many of those supplies are, or could be, produced within those countries; Tanzania, like others, has a long standing industrial sector including pharmaceuticals.
- So how can local industrial production of supplies improve to the benefit of the populations requiring health care as well as industrial development?
- and if there are mutual benefits to be extracted by sellers, buyers and users, why isn't it happening?

A Severe Supplies Gap, Especially in Lower Level Facilities

Tracer medicines availability in health centres and dispensaries

Facility/shop sector	Availability			Total
	Available	On order	Never ordered	
Public	58	9	32	100
Faith-based	72	7	22	100
Private	63	6	31	100
Total	62	8	26	100

Other supplies availability in health centres and dispensaries

Facility/shop sector	Availability				Total
	Available	On order	Never ordered	Not functioning	
Public	62	5	32	1	100
Faith-based	79	3	17	1	100
Private	64	3	33	0	100
Total	66	4	29	1	100

Missing and never-ordered items included medicines for chronic illnesses, and anti-haemorrhage medicine for maternity care; also basics including gloves, syringes, disinfectant.

Health Sector Funding Sources and Trends

Health sector funding is a source of problems in access to treatment.

- Decline in real terms since 2009/10 in total public funding and public funding per head for health care.
- High donor dependence – particularly high in medicines funding
- Share of out of pocket (OOP) payment is too also high: the % figures below from the NHA underestimate the OOP share because they omit medicines purchases in shops.

Financing source	2002/03	2005/06	2009/10
Households	25.4	28.0	26.0
Donors	27.4	44.0	39.6
Ministry of Finance	42.0	25.0	32.3
Other private	5.1	3.0	2.1
Total	100	100	100

Health Benefits from More Local Industrial Supply

Industrial improvement, in productivity, product diversity and employment, can provide for the health sector:

- Greater security of supply.
- Better rural supplies particularly, through local firms' distribution systems.
- Sustainably cheaper basic essentials so long as local market competition is sufficient.
- Reliable quality through local regulatory oversight
- Clear understanding by suppliers of local needs.

What is Made in Tanzania for the Health Sector?

Tracer items made in Tanzania by country of origin

Item name	Country of manufacture			
	Tanzania	Kenya	Other	Total
Medicines: Tablet/ capsule	22	9	69	100
Medicines: Syrups	9	81	9	100
Alcohol/ spirit for wound cleaning	100	0	0	100
Bed net	100	0	0	100
Bed sheet	100	0	0	100
Detergents	64	28	8	100
Disinfectants (Hibitane, Savlon)	38	17	46	100
Emulsion oil for laboratory	6	18	76	100
Hydrogen peroxide	100	0	0	100
Mop or broom	82	0	19	100

Relatively low technological level in both pharmaceuticals and other items

Local Manufacturers Could Supply More

The health sector local supplies gap includes :

- A greater range of medicines, including some using more advanced manufacturing techniques;
- Other pharmaceutical items such as diagnostic test kits;
- Medical supplies, such as syringes and needles, gloves, cotton wool;
- Some laboratory supplies such as reagents and slides;
- A higher proportion of basic requirements including infection control items, plastic sheeting, medical furniture.

What are the Barriers? Suppliers to the Health Sector 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 import competition, 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.

Redesigning Health Sector Financing and Procurement

To raise local procurement, and improve supplies for patient benefit, changes are needed in the health sector:

- Lower share of OOP in health financing;
- Greater public and donor financing to ensure access at point of use
- More local-industry-friendly procurement procedures: e.g.
  - Trade credit for local producers,
  - Manageable tender sizes, some local tenders,
  - Contract length and structure favouring investment by local firms,
  - Reliable payment terms,
  - Accreditation of suppliers for repeat orders.

A Sectoral Industrial Strategy for Health Sector Suppliers

- Prioritise the pharma and medical supplies sector, responding to specific characteristics of the sector – needs a champion.
- Selective import protection for the pharmaceutical sector, e.g. tariff in final formulations to level the playing field; a “negative list” of products for local supply only; VAT amendments to ensure local firms not disadvantaged.
- Technical and financial support for technical upgrading, quality improvement, productivity improvement, meeting regulatory hurdles, developing technical learning and formulation and development capability;
- Skills improvement: urgently address the current skills gap for this industry through focused training, public/private partnerships and support for relevant technical and scientific education.

Generating Mutually Supportive Improvement in Health System, Industrial and Government/Regulatory Capabilities

- Current interactions generate quite a lot of exclusion from care alongside very high import dependence.
- All firms rely on their domestic markets for their core business.
- The need is for a virtuous circle in the domestic economy where each element contributes to mutually reinforcing improvement in capabilities.
- Discussion could focus on how these virtuous interactions can be kick-started and sustained?

Further Reading

The project has produced a book: *Making Medicines in Africa: the Political Economy of Industrialising for Local Health* Palgrave Macmillan.

: open-access, free to download under creative commons licence at http://www.palgraveconnect.com/pc/doifinder/10.1057/9781137546470 or from Amazon at zero price.

Further information from the *REPOA Briefs* from the project at http://www.repoa.or.tz/publications/category/briefs_from_repoa Brief numbers 43 and 46.

Further project information on the project website http://iphsp.acts-net.org/