Privatization of Diagnostic Laboratories in Kenya and South Africa

COVID-19 and Lancet Laboratories as a case study and implications for the realization of Universal Health Coverage

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About the Fellows

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South Africa
South Africa has a two-tier, public-private health care system which remains deeply divided along racial and class lines.

The public health care system is funded through taxpayer and government money, and is decentralized (provinces have jurisdiction).

The public health care system is also accessed by close to 70% of the population, with the vast majority of whom being working class or poor and Black.

The private health care system is used by about 23-30% of the population, with:
- 7% fee-for-service (ffs) basis
- 23% have health insurance
COVID-19 Pandemic
COVID-19 Pandemic

- South Africa has the third highest importation risk on the continent after Egypt and Algeria, measured as the probability of importing a case from affected provinces in China.
- On March 5th the first positive case was reported in South Africa, a male who had tested positive for the virus upon his return from a tour of Northern Italy with 9 others.
- Initially, the virus was distributed amongst the wealthy, but then spread to the poor and working-class Black majority who now bare the brunt of mild and severe COVID-19 outcomes.
- These outcomes were exacerbated by the parallel diagnostic testing systems that emerged as the virus began to spread.
COVID-19: Lancet Labs as a case study

• Initially, diagnostic testing was handled by a subsidiary of the National Health Laboratory Service, the National Institute for Communicable Diseases (NICD), which began COVID-19 diagnostic testing in late January 2020

• This system later became overwhelmed due to lack of capacity (e.g. lack of skilled personnel, lack of reagents) – leading to a backlog of 80 000 tests and +/-7 day turnaround time by early June

• Coupled with neighboring African countries sending test samples to South Africa for NICD for processing

• On March 9th 2020, the NICD allowed Lancet Labs, a private pathology laboratory founded in South Africa in the 1970’s – to also provide diagnostic testing services with a 24 hour turn around time (TAT) from when the test sample reaches Lancet lab
COVID-19: Lancet Labs as a case study

- Lancet Labs appears as a net benefit- where the public sector lacks capacity, the private sector steps in
- **BUT**, access to their diagnostic testing services is based on affordability and geographic proximity
  - NICD provides these services to South Africans for free
  - Lancet Labs tests cost CAD112.83, later reduced to CAD19.34
  - only those with medical insurance and ffs access able to afford
- Profiting from the pandemic: profits skewed towards private sector
  - of 4,633,671 diagnostic tests conducted, 53% in private sector and 47% in public sector
• During pandemic, public-private dichotomy undermined Government’s progression towards Universal Health Coverage (UHC), a constitutional guarantee

• Quality lab testing **needed** to affirm clinical diagnoses, conduct accurate infectious disease surveillance and control, inform public health policy

• lab **capacity insufficient** to meet such needs
Policy and programmatic recommendations

- Allocate more funding to the NHLS and NICD: currently sub-programmatic funding is bottlenecked towards HIV, AIDS & STI treatment and prevention. Funding for the NICD sits at over 3.5% of provincial budgets
  - Labs are being asked to provide an increased amount of services without a corresponding increase in budget
  - Funding should primarily be allotted to human resources, infrastructure, technology, and skills development
Policy and programmatic recommendations

• Reform medical school curricula to increase the teaching of pathology and lab medicine in undergraduate curricula (progressive decline). Also increase and promote lab technician program offerings at Technical and Vocational Education and Training (TVET) colleges.

• Mandate that private companies, such as Lancet Labs, provide paid training and development to post-secondary students and recent graduates (internship experience).

• Thereafter relegate graduates to the public lab sector for a prescribed amount of service years (similarly to Zuma years).
Policy and programmatic recommendations

• Ministry of Science and Innovation to award funding to small and medium-sized local companies & researchers to create locally developed technologies
  • to avoid excessive importation costs, stimulate homegrown talent/knowledge & become more self-sufficient
  • trade liberalization has stifled local knowledge and manufacturing
Policy and programmatic recommendations

• Improve demand management by collecting data on inappropriate requesting of laboratory tests from primary care

• South Africa is developing a landmark National Health Insurance (NHI) policy, to be implemented by 2025
  • Government has latitude to mandate the breadth of tests and services to be covered by the public sector- potentially decreasing the market for private laboratory services
  • Create well defined economic, capacity & quality-related targets for the public laboratory service to be continually appraised (to ensure that NHI service-coverage policy is evidence-based)
Kenya
Kenya: Historiography of health policy

• Kenya gained its independence in 1963
• Released Sessional paper 10: ‘African Socialism and its implementation and planning in Kenya’ in 1965
• aimed to provide universal health coverage for all Kenyans
• Abolished user fees (1965), established National Hospital Insurance Fund (NHIF) (1966)
• Several attempts to enact UHC, most recent in 2004
• Increased private-sector participation since
Kenya’s Health System

• Kenya is made up of 47 counties
• Decentralized system of governance
• County governments are responsible for the management and delivery of health services to their constituents
• National government (MoH) is responsible for funding counties, policy-making, and the delivery of health services through the 3 national referral hospitals
• Health services are divided across 6 levels, where complexity increases in a stepwise manner, through a referral system
• Primary care can be obtained at community facilities and dispensaries
• Complex cases referred to county and national hospitals
• Until 1989, the health system was financed through taxation; since changed to multi-payer system

Figure 1 The six levels of health care service delivery in Kenya.
The Public-Private Divide in Health Systems

- Health facilities are run by government (48%), private-for-profits (41%), and private-non profits (9%)
- Kenya has one of the largest private health sectors in East Africa, and its government spending on health (approx. 6% of total budget) is comparatively lower than neighbouring nations
- Private services typically more costly
- NHIF covers most services at all public facilities (inpatient and some outpatient expenses), and some services at NHIF-accredited private facilities
- But, NHIF is only mandatory for adults working in the formal sector
- Those in the informal sector can opt to make monthly payments (500 KES) to cover themselves and their dependents
- Consequently, only 15.8% of the population is covered by NHIF; they constitute over 80% of Kenyans with any sort of health insurance
- The uninsured population can access some services for free in public health facilities (e.g. maternity care)
- But, public health facilities often have medical specialists and equipment concentrated in major cities like Nairobi
- rural facilities often understaffed and poorly equipped

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Source: e-health (www.e-health.go.ke)
COVID-19 in Kenya, Testing Capacity & Laboratory Systems

- Kenya recorded its first COVID-19 case on March 13, 2020
- 46,144 people have since tested positive for the disease, 858 deaths have been recorded, and 32,780 people have recovered
- Estimated case fatality rate less than 2%
- True total of deaths and cases are likely higher
- Global surge in demand for testing materials led to scarcity that disadvantaged Kenya and other LMICs with strained testing capacity
- Kenya’s current testing capacity is between 7,300-10,000 tests/day (includes public and private facilities)
- For context, Ontario (30% of Kenya’s population), has testing capacity of ~40,000 tests per day
- Initial targets for testing were persons exhibiting symptoms of other high-risk groups
- Free COVID-19 tests for most vulnerable; subsidized tests for NHIF-insured, out of pocket payments for uninsured- and privately-insured
COVID-19, Testing & Labs continued...

• Laboratory system is integral component of the broader health system
• For both PH measures and routine medical care
• Public-private divide has serious implications for equitable access to laboratory services
• Due to heavy international support (via vertical programs) public laboratory facilities are well equipped to test for diseases like HIV, TB, malaria
• Less equipped to test and manage diseases that have received less support, both communicable and noncommunicable
COVID-19: Lancet Laboratories as Case Study

- Lancet Laboratories (part of the South African-based Lancet Group of Laboratories) opened in Kenya in 2009
- 35 branches located across the country
- Aside from private hospitals, only private COVID-19 test provider
- COVID-19 test cost: 8,8849 KES (roughly 106 CAD)
- TAT: 24 hours (most of the pandemic)
- Dozens of discordant test results reported; patients who tested negative at public national (and some private) hospitals were retested at Lancet, receiving positive results
- Lancet COVID testing equipment of superior quality; able to detect lower levels of viral load
- Lancet clientele largely urban with means to pay for health services
- Clients can refer themselves for testing while patients in public sector require a referral from a health service provider
- Lancet alleviates some burden from public sector for testing, but gains are not distributed fairly
- further entrenches inequities to COVID-19 test access in a time where profit from testing should not be a priority
Policy Recommendations

- Increasing total health expenditure on pathology and laboratory services to 4% (like comparable LMICs in the region: South Africa & Uganda)
- A national commitment to train and produce pathology and medical laboratory professionals including pathologists and laboratory technicians (currently 150 pathologists for 51 million Kenyans)
- Increased government regulation of existing private public partnerships (PPPs) in laboratory services (there are currently 20)
- Government-regulation of COVID-19 test prices in private sector to promote equitable access to testing
Thank you
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Please let us know if you have any questions!