

# ESTABLISHING MECHANISMS TO FUND INFRASTRUCTURE DEVELOPMENT PROJECTS IN MEDICAL TRAINING INSTITUTIONS: LESSONS FROM KENYA

January 2017

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## BACKGROUND

Achieving quality health care for all Kenyans is one of the basic rights enshrined in the Constitution of Kenya 2010.<sup>1</sup> To actualize this right, the Government of Kenya (GOK) through various policy documents such as the Kenya Vision 2030<sup>2</sup> has identified health as a key social pillar to improve the quality of life for all Kenyans. The Kenya Health Strategic and Investment Plan<sup>3</sup> has committed to ensure the health sector achieves the health worker staffing norms needed to deliver the minimum expected health care services to all Kenyans. However, even with these policy directives, Kenya's shortage of health workers is limiting the country's effort to provide universal health care.

Training new qualified health workers is a key strategy to increase the health workforce in Kenya.<sup>4</sup> A large gap exists between the number of qualified applicants and those admitted to medical training colleges.<sup>5</sup> For example, the Kenya Medical Training College (KMTCC), which trains an estimated 85% of all mid-level health workers, only admits 25% of the 25,000 applicants that meet the criteria for admission annually.<sup>6</sup> Production of health workers by all registered medical training colleges in Kenya is reported below the expected vacancies in the

health sector.<sup>7</sup> Studies show that existing physical and human resources capacities in medical training institutions are inadequate to expand admission.<sup>8</sup>

Beginning in 2012, the FUNZOKenya Project, led by IntraHealth International and funded by the President's Emergency Plan for AIDS Relief (PEPFAR) through USAID, supported the GOK to improve the accessibility and quality of health workforce training. As one strategy to increase production of new health workers, the project supported medical training institutions to develop and expand infrastructure. To increase student admissions, training institutions must commit to expanding infrastructure to ensure adequate classroom spaces, sufficient accommodation, transportation, and an appropriate number of qualified tutors, lecturers and support staff for effective training.

## PURPOSE

During the first three years of the project, FUNZOKenya supported institutions to conceptualize infrastructure development and/or expansion projects, review strategic plans, and mobilize resources. In its last two years,

<sup>1</sup> Constitution of Kenya 2010

<sup>2</sup> The Kenya Vision 2030 (<http://www.vision2030.go.ke/social-pillar>)

<sup>3</sup> The Kenya Health Strategic and Investment Plan 2014-2018

<sup>4</sup> National HRH Strategic Plan (NHSSP11)

<sup>5</sup> Mbindo, C. Presentation at National HRH Conference, Nairobi, December 8, 2011

<sup>6</sup> KMTCC report on health workforce mapping, October 2012

<sup>7</sup> Mbindo, C. Presentation at National HRH Conference, Nairobi, December 8, 2011

<sup>8</sup> State of Medical Education and Training in Kenya: Bottlenecks and Best Buys Assessment, 2013



FUNZOKenya promoted partnerships (public and private) and created linkages with financiers to provide accessible, affordable, and competitive development loans to finance implementation projects. Performance grants were also provided to institutions that met set criteria to equip and expand their learning infrastructure.

## TECHNICAL APPROACH

FUNZOKenya employed a four-pronged approach to support infrastructure expansion: a baseline assessment, technical assistance, access to finance, and the establishment of public-private partnerships. These approaches are discussed in detail below.

**Baseline assessment:** In 2013, the project conducted a baseline assessment of 9 of 14 training institutions using the health professional management tool (HPMT) to identify key bottlenecks to expansion and effectiveness of medical education. The HPMT assessed nine thematic areas: perceptions on leadership by training institution heads, faculty members, students, clinical site managers and other stakeholders; management and governance structures; curriculum development; adequate faculty member-to-student ratio and faculty development; quality assurance standards; partnerships and exchange programs; adequate infrastructure and other education resources, materials and equipment; clinical practice; and student enrollment and support. Data were collected from 515 respondents and analyzed using quantitative and qualitative methods.

The survey assessed physical and information and communications technology (ICT) infrastructure, including the number and size of classrooms, lecture halls, demonstration rooms, libraries,

computer laboratories, research/other laboratories, dormitories, and cafeterias; and electricity and water supplies that would enable institutions to expand their capacities to admit students. Participating institutions were selected to provide diversity in geographical and regional spread, ownership (public, private, and faith-based organization [FBO]), student population, and courses offered. The results (Table 1) showed all institutions with perceived inadequate infrastructure, with the exception of reliable electricity for FBO institutions and reliable water supply in private institutions. All perception percentages below 75% are regarded as “inadequate” for quantity and “less than satisfactory” for quality.

In addition to the dilapidated infrastructure, the assessment found that faculty and staff did not have the capacity or motivation to conceive infrastructure development or income generating projects that would result in increased admission, better quality training, and institutional financial stability. Staff and faculty lacked the skills needed to develop strategic and business plans as well as funding proposals. While the GOK encourages public training institutions to embrace public-private partnerships (PPPs) as a mechanism for mobilizing development resources, the assessment showed a general lack of understanding of the PPP process and its requirements. Similarly, private and FBO training institutions did not have structured resource mobilization units or access to affordable financing.

As a follow up to the assessment, FUNZOKenya conducted a desktop survey on the cost of accessing infrastructure development loans from commercial banks, revealing that most interest rates on such loans ranged between 15%-24%, above what most training institutions could afford. The survey also showed that the majority of potential

**Table 1: Perception of quantity and quality of physical infrastructure by institution type**

|  | Public | FBO | Private |   | Public | FBO | Private |
|--|--------|-----|---------|---|--------|-----|---------|
| <i>The quantity of physical infrastructure is adequate</i> |        |     |         | <i>The quality of physical infrastructure is good</i> |        |     |         |
| <b>Classrooms</b>  | 22%    | 21% | 23%     | <b>Classrooms</b>                                     | 15%    | 21% | 24%     |
| <b>Demonstration rooms</b>                                 | 14%    | 23% | 35%     | <b>Demonstration rooms</b>                            | 43%    | 20% | 37%     |
| <b>Libraries</b>   | 16%    | 33% | 17%     | <b>Libraries</b>                                      | 8%     | 27% | 14%     |
| <b>Laboratories</b>  | 18%    | 27% | 32%     | <b>Laboratories</b>                                   | 9%     | 17% | 25%     |
| <b>Computer labs</b>                                       | 12%    | 5%  | 27%     | <b>Computer labs</b>                                  | 12%    | 3%  | 32%     |
| <b>Dormitories</b>   | 8%     | 21% | 12%     | <b>Dormitories</b>                                    | 4%     | 17% | 10%     |
| <b>Cafeteria</b>   | 11%    | 34% | 26%     | <b>Cafeteria</b>                                      | 9%     | 10% | 24%     |
| <b>Electricity</b>   | 48%    | 91% | 69%     | <b>Electricity</b>                                    | 35%    | 86% | 52%     |
| <b>Water</b>   | 36%    | 70% | 75%     | <b>Water</b>  | 22%    | 54% | 41%     |

private financiers such as commercial banks and private equity firms were keener to finance projects within private institutions than public and FBO-owned ones.

**Technical assistance:** FUNZOKenya supported institutions' leadership to establish strategies and mechanisms to address infrastructure and efficiency gaps. The project worked with training institutions to conduct a strengths, weaknesses, opportunities, threats (SWOT) analysis and establish infrastructure development goals regarding fiscal impact, administrative capacities, legal environment, and political constraints. Each institution's leadership was supported to form project steering committees to assess and prioritize interventions and investment opportunities, build consensus among stakeholders (e.g., institutional leadership, management, faculty), develop or review strategic plans and other institutional policies and align them to optimize resource utilization, and improve the efficiency, effectiveness, and overall performance of the colleges for long-term sustainability. FUNZOKenya later supported the institutions to establish resource mobilization units and develop business plans and fundraising proposals. Public institutions were supported to establish PPP nodes, bodies including the personnel and authority needed to design, develop, and implement PPP projects under the PPP Act of 2013.

**Access to financing: commercial bank loans:**

FUNZOKenya established innovative partnerships with local and international financial institutions to design a loan program that makes capital available to training institutions at competitive interest rates below the market base lending rate. This resulted in a competitive development loan program with Chase Bank Ltd. that makes capital available to institutions that meet the lending requirements at an interest rate of 14%-16% percent, depending on the institutions' credit rating.

**Access to financing: public-private partnerships:**

FUNZOKenya built the capacity of institutions' PPP nodes to develop concept notes and proposals that were then submitted to their contracting authorities and to the PPP unit of the National Treasury for approval for development under the GOK PPP framework. In some cases, FUNZOKenya facilitated discussions on the PPP projects with various investors and potential financiers including the GOK's PPP unit and the ministries of health and education.

**Accessing to financing: private equity funds/venture capital:** With the growing number of private equity firms and venture capitalists in Kenya,<sup>9</sup> they may become a more common resource for infrastructure development. FUNZOKenya facilitated discussions with three private equity firms, sensitizing them on the need to invest in medical training through partnerships with local health training institutions, based on the documented level of need and returns. Various funding instruments were discussed and potential partnership options explored.

**Access to financing: bilateral and multilateral funding:**

In collaboration with USAID, FUNZOKenya used the Development Partners in Health Kenya (DPHK) platform to make a case for potential partners to consider financing medical training institutions. The project also held strategic discussions with the International Finance Corporation/World Bank Group, Islamic Development Bank, and African Development Bank in collaboration with the Ministry of Health (MOH) to sensitize them to provide and/or develop affordable and sustainable funding mechanisms for financing infrastructure development in collaboration with the GOK and local banks through concessions and infrastructure development loans.

**Access to financing: grants:** FUNZOKenya issued performance-based grants to selected medical training colleges that met set criteria to buy equipment and furniture.

## RESULTS

The 18 collaborating training institutions reviewed or developed strategic plans and other institutional policies to strengthen and optimize infrastructural planning and resource utilization. Related institutional leadership, management, and governance structures have been strengthened to improve and sustain overall performance. As summarized in Table 2, FUNZOKenya's support contributed to these institutions conceptualizing 24 different infrastructure development projects and mobilizing over Kshs 2B toward their implementation.

<sup>9</sup> Business Daily, Monday 8th August 2016, Kenya leads Africa in private equity firms' investments ([www.businessdailyafrica.com/Kenya...private-equity-firms-investments/.../index.html](http://www.businessdailyafrica.com/Kenya...private-equity-firms-investments/.../index.html))

**Table 2: Institutions, infrastructure development projects, and funds mobilized**

| <b>Training institution</b>                                | <b>Type of institution</b> | <b>Support/ intervention area</b>  | <b>Institutional document/ funding instrument supported</b>   | <b>Infrastructure development/expansion project</b>                    | <b>Budget amount approved (Kshs million/ billion)</b> | <b>Amount raised as of Sept. 2016 (Kshs million)</b> |
|--|----------------------------|--|---|--|---|--|
| <b>KMTC</b>  | Public                     | PPP  | PPP concept note  | Tuition and research complex   | 2.9B  |  |
|  |                            |  | PPP concept note  | Hostel and accomodation  | 3.6B  |  |
|  |                            |  | PPP concept note  | Conference and seminar halls   | 1.6B  |  |
|  |                            | Grants   | Funding/grant proposal  | Student Management Information System                                  | 400M  |  |
| <b>Pwani University</b>                                    | Public                     | PPP  | PPP concept note and terms of reference (TOR) for PPP project feasibility studies and transactional advisory services | Establishment of school of medicine and teaching and referral hospital | 9.84B   |  |
|  |                            |  | PPP concept note and TOR for PPP project feasibility studies and transactional advisory services                      | Expansion of student hostels   | 3.79B   |  |
| <b>Technical University of Mombasa</b>                     | Public                     | Grants/ commercial bank loan facilities/ private equity funds/ venture capital | Business plan   | Establishment of school of medicine                                    | 300M  | 50M  |
| <b>Maseno University</b>                                   | Public                     | PPP  | PPP concept note  | Establishment of a teaching and research hospital                      | 3.5B  |  |
| <b>Moi University</b>                                      | Public                     | PPP  | PPP concept note  | Expansion of the University Teaching and Diagnostic Centre             | 1.2B  | 200.6M   |
| <b>Masinde Muliro University of Science and Technology</b> | Public                     | Grants/ commercial bank loan facilities/ private equity funds/ venture capital | Business plan   | Establishment of a college of health sciences                          | 1.8B  | 47M  |
| <b>St Joseph Nyabondo</b>                                  | FBO                        | Grants   | Strategic plan  | Hostel expansion project   | 50M   |  |
|  |                            | Commercial bank loan facilities/ private equity funds/ venture capital         | Concept note  | ICT and teaching equipment   | 2.6M  | 20M  |
| <b>Uzima University</b>                                    | FBO                        | Commercial bank loan facilities/ private equity funds/ venture capital         | Strategic plan  | Equipping and stabilizing existing facilities and operations           | 53M   | 53M  |
|  |                            |  |   | Expansion of learning infrastructure and ICT                           | 746M  | 700M   |
|  |                            | Grants   | Funding proposal  | Expansion of learning infrastructure and ICT                           |   |  |

| Training institution                    | Type of institution | Support/ intervention area              | Institutional document/ funding instrument supported | Infrastructure development/expansion project   | Budget amount approved (Kshs million/ billion) | Amount raised as of Sept. 2016 (Kshs million) |
|---|---------------------|---|--|--|--|---|
| Tenwek School of Nursing                | FBO                 | Grants                                  | Funding proposal                                     | Development of recreational facilities (dining, kitchen and multipurpose halls) and expansion of tuition facilities (classrooms and library) and hostels | 46M  | 22M   |
| Ortum School of Nursing                 | FBO                 | Grants                                  | Funding proposal                                     | Expansion of learning infrastructure/complex (classrooms & hostels)  | 22.5M  | 9M  |
| Kijabe College of Health Sciences       | FBO                 | Grants/ commercial bank loan facilities | Strategic plan and funding proposal                  | Expansion of student hostels   | 230.2M   | 4M  |
|   |                     |   | Business plan  | Expansion of the college learning complex  | 324.2M   |   |
| Tawfiq Hospital Malindi                 | FBO                 | Grants/ commercial bank loan facilities | Concept note   | Establishment of a school of nursing   | 150M   | 20M   |
| Maua Nursing Home                       | FBO                 | Grants/ commercial bank loan facilities | Funding proposal                                     | Expansion of student hostels and classrooms  | 54M  | 2.8M  |
| Kenya Methodist University              | FBO                 | Grants/ commercial bank loan facilities | Funding proposal                                     | Establishment of KEMU Medical Plaza  | 704.5M   | 24M   |
| Presbyterian University of East Africa  | FBO                 | Grants/ commercial bank loan facilities | Concept note   | Equipping of anatomy, physiology and biochemistry labs   | 60M  |   |
| Great Lakes University                  | Private             | Grants/ commercial bank loan facilities | Business plan  | Equipping and stabilizing existing facilities and operations   | 251M   | 251M  |
|   |                     | Private equity funds/ venture capital   | Concept note   | Establishment of a cancer and clinical oncology center as a teaching and referral hospital   | 4.42B  |   |
| Outspan Medical College                 | Private             | Private equity funds/ venture capital   | Business plan  | Expansion and establishment of training facilities around the Mt. Kenya region   | 1.2B   | 700M  |
| Abraaj Capital Group Training Institute |                     | Private equity funds/ venture capital   | Business plan  | Establishment of a middle-level college along Kiambu Road  | 560M   | 560M  |

## DISCUSSION

Public and private sector actors need to recognize that it is not possible for any one sector to increase accessibility and quality of health workforce training alone. Both sectors are interdependent and therefore need to collaborate to achieve better outcomes.

The availability of capital from private equity or a commercial loan is limited because investors and bankers are generally more careful and risk

averse in investing in emerging markets such as financing infrastructure development in medical training institutions, coupled with institutions' poor credit ratings. Yet huge capital needs exist. Affordability of financing is therefore vital; it should be cost-effective and reasonable to enable training institutions access so as to expand.

Public-private partnerships are currently taking center stage because of the limited availability of

government capital. PPPs are a viable mechanism and financial instrument that public institutions can leverage to finance infrastructure needs and lessen the government funding burden. However, the PPP mechanism is relatively new, and there is limited understanding by training institutions of its basic concepts, requirements, and the provisions of the PPP Act. Further, the implementation process is reported to be long, rigorous, and expensive. It is imperative for the GOK and key stakeholders to work together to review the PPP process, ensure it is better understood by users, and increase awareness of this mechanism through capacity building and advocacy. When PPP is selected as the mode for funding, training institutions and partners should ensure there is continued high level of commitment among key actors; realistic goals are established from the onset; stakeholders are well informed and involved at all stages of development; risks are assessed and assigned to the party most capable of managing them; regulatory capacity is built early on; and there is transparency in the process.

Irrespective of the financing model adopted by the training institution, a sustainable framework should ensure that roles, responsibilities, and risks are clearly assessed and allocated; incentives and accountabilities are internally consistent; agreements are enforceable; and there is an appropriate balance of power and respect between contracting parties so as to have successful negotiations. Due to the complexity and challenge of managing and responding to risks related to partnership and financing models, parties are encouraged to apply a multi-sector and multi-institutional cooperation approach to create a complementary agenda including developing funding requirements, funding instruments, selection criteria, application processes, governing conditions, award processes, risk assessment and management before jumping into a transaction. Institutions' management should continue to be strengthened to ensure funds received from lenders or investors are well managed and used for the intended development projects and loan repayment or investor obligations are met within the agreed-upon timelines and to improve institutions' credit rating for future borrowing or investment.

## CONCLUSION

Without sufficient investments in basic infrastructure, improvement in the quality and quantity of medical graduates in Kenya is not possible. With support from FUNZOKenya, these 18 institutions conceived and prioritized a variety of infrastructure development projects geared toward being able to admit and produce more health workers. These funding initiatives were guided by a number of fundamental principles, key among them building strong partnerships with development partners, government agencies, and the private sector to strengthen health workforce training. Innovative approaches were used in the development of these partnerships, funding requirements and instruments, thus enabling financing to be more accessible and affordable to many of the training institutions.

Health training institutions and key stakeholders should continue to apply a holistic approach to transform training through development of sustainable financing models that can support increased admissions. Establishment of a central funding mechanism or an affordable infrastructure development loan program would make capital available to institutions that do not meet multinational or bilateral agencies' direct lending thresholds. This would encourage institutions to prepare plans and funding instruments for direct borrowing in alignment with projected increases in student admissions and demand, and enable more investment in innovative approaches to training delivery, such as electronic, mobile and distance learning. This will ultimately increase hiring of qualified faculty with adequate resources to effectively equip future health workers; improve graduation rates, skills, and competencies of health workers; and strengthen the accessibility, quality, and equity of health care for all Kenyans in line with the Constitution and Vision 2030.

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