policy

December 2015

MOVING TOWARD UNAIDS 90-90-90 ART TARGETS IN TANZANIA

COVERAGE, COSTS, IMPACT, AND FUNDING GAPS

Brief

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Financing Needs for Scaling Up Antiretroviral Treatment (ART) in Tanzania

While Tanzania has made substantial progress in rapidly increasing ART coverage, much work remains to achieve the United Nations Joint Programme on HIV/AIDS global 90-90-90 targets by 2020 (90% of all people living with HIV [PLHIV] are diagnosed and know their HIV status, 90% of those diagnosed are initiated and maintained on ART, and 90% of those on ART are virally suppressed). Based on these targets, Tanzania's total projected funding gap for ART commodities is US$640 million from 2016–2020, so "test and offer" ART guidelines will only be possible if the Government of Tanzania (GOT) continues to emphasize domestic resource mobilization (DRM) and efficiency in service delivery. New sustainable financing mechanisms such as the incorporation of ART in benefit packages of insurance schemes, public-private partnerships in provision, and greater domestically funded procurement of commodities must be explored as potentially innovative solutions for mobilizing funds to address the ART resource gap.

This brief from the USAID- and PEPFAR-funded Health Policy Project (HPP) offers analysis of

- Best estimate costs for expanding ART coverage in Tanzania using 90-90-90 targets
- Best estimate costs for commodities and laboratory services to meet ART coverage targets
- Public health benefits of meeting 90-90-90 targets

Background

In 2015, HIV prevalence in Tanzania (mainland) was estimated to be 5.7 percent among adults and adolescents (15 years and older), a decline from 2005, when the comparable value was 6.1 percent. Today, an

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estimated 1.46 million Tanzanians are living with HIV, and 84,000 new infections and 69,000 AIDS deaths occur in the country each year.[1] Although these figures have improved, they still indicate the importance of controlling the epidemic and reducing mortality through ART scale-up in the coming years. This brief investigates whether Tanzania's current plans for scaling up ART are sufficient to meet the 90-90-90 fast-track treatment target of at least 81 percent of all PLHIV receiving ART by 2020. It also analyzes the cost implications of achieving these targets, as well as the substantial funding gap for HIV commodities that exists in Tanzania, highlighting the need for DRM for HIV and AIDS.

The National AIDS Control Program (NACP) of Tanzania's Ministry of Health and Social Welfare (MOHSW) currently relies primarily on external funding from established sources such as PEPFAR and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). However, funding from these partners is expected to level off or decline in the future, while Tanzania's resource needs for HIV and AIDS programming will increase in the short term. The multisectoral HIV and AIDS response in Tanzania is estimated to require US$600–617 million per year, with the largest portion of money going toward antiretroviral drugs (ARVs) and laboratory commodities.[2] Still, there is reason to believe that DRM for health, including HIV, is feasible given Tanzania's strong economic growth, stable polity, and potential to harness funding from innovative sources. Given Tanzania's ambitious targets for HIV, its fiscal ability to sustain coverage is crucial—thus the emphasis placed on initiatives to establish sustainable financing mechanisms such as the AIDS Trust Fund (ATF). It is also important to acknowledge the shift in PEPFAR's strategy based on geographical and epidemiological prioritization—focusing on districts with the greatest need for ART—as an important element for long-term sustainability of the overall HIV response.

Aligning with Global Guidelines on Early Treatment for PLHIV

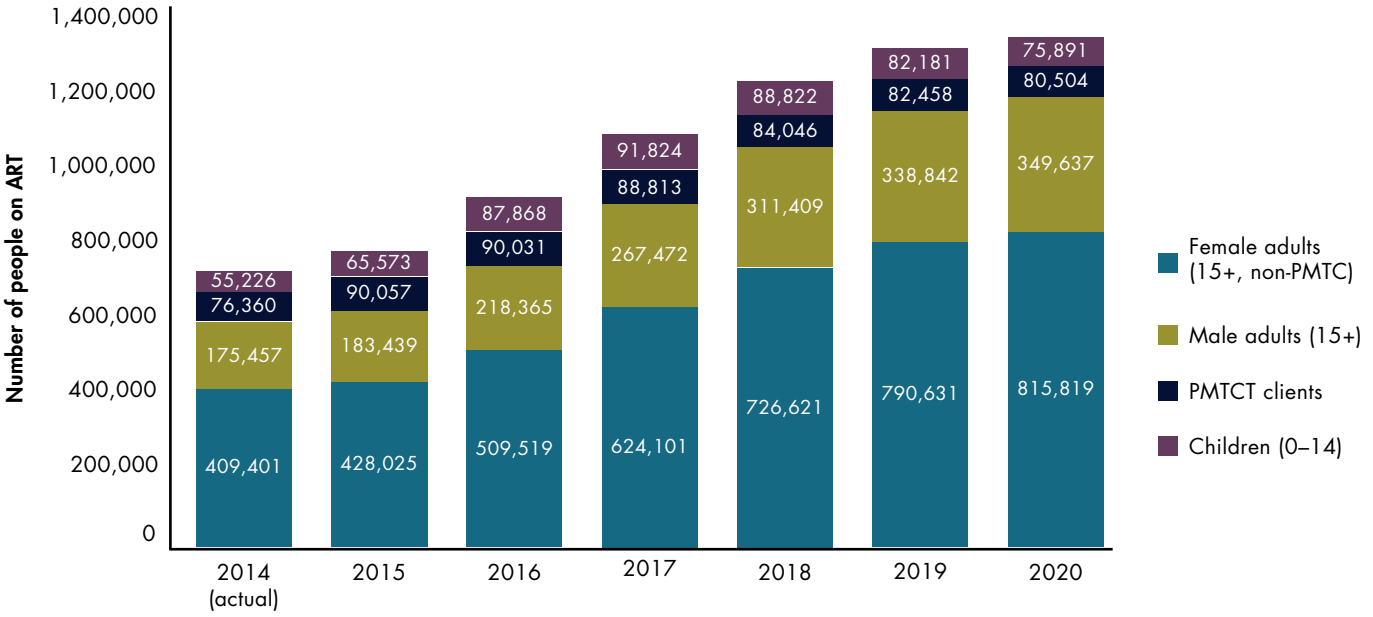
In 2015, the MOHSW, through the NACP, issued a circular with new service guidelines for PLHIV that are aligned with the World Health Organization (WHO) guidelines issued in July 2013. In April 2015, the NACP called for immediate expansion of pediatric eligibility to allow all HIV-positive children and adolescents ages 15 and under to be enrolled on ARV regardless of their CD4 level; however, identifying children in need of ART has been a challenge. By September, eligibility for ARV enrollment was expanded to include adults and adolescents (15 years and older) with CD4 levels <500, with implementation of the rollout expected to begin in January 2016. The new guidelines also state that all newly initiated patients should undergo routine viral load testing.[3]

In November 2015, the NACP met in Morogoro to align national targets with the UNAIDS 90-90-90 targets. Figure 1 on page 3 summarizes year-end targets through 2020 for adults and adolescents living with HIV (15 years and older), excluding pregnant women, pregnant women living with HIV, and children and adolescents living with HIV (15 years and younger).

Costs of Adopting New HIV Treatment Guidelines

Unit costs for adult and pediatric ARV regimens (first- and second-line) were calculated from the ARV quantification exercise done in July 2015 by the NACP.[4] The current and projected percentage breakdowns of patients by regimen were also taken from this exercise. Similarly, weighted average unit costs for laboratory costs—inclusive of reagents, consumables, shared lab supplies, quality control, and wastage—were taken from a lab quantification exercise conducted by the NACP concurrent with the ARV quantification. Failure rates of first-line treatment and viral load retest rates were confirmed with the NACP, and the new ART targets were entered into the 2015 Spectrum AIM model for Tanzania, which then recalculated HIV and AIDS population outputs. These outputs included changes in vertical transmission due to increased ART coverage among pregnant HIV-positive women in Tanzania. It is important to note that this study focused primarily on ART commodity costs, as opposed to the full cost of service delivery. ART scale-up will also require improvements in identification of HIV-positive individuals, linkage to care, and retention. Other important factors, such as shortages in human resources for health and the need for

Figure 1: ART Enrollment Targets for PLHIV, by Subcategory[5]



facility and equipment maintenance, represent additional barriers to achieving targets. Although these issues are not factored into this costing exercise, they are important elements to recognize.

Total ARV and laboratory commodity resource requirements for meeting the NACP's ART targets are estimated to be US$217 million for the 2016 calendar year (Figure 2, page 4). This figure rises to an estimated US$333 million by 2020. The standard mark-up used by the NACP in the most recent Global Fund proposal for procurement and supply chain management (PSM) expenses is equivalent to 24.6 percent of the commodity costs, based on Medical Stores Department (MSD) fees and expense ratios from prior years (10% freight + 1% clearance + 2% quality assurance + 6% MSD charges + 5.6% GOT PSM). Including PSM costs, the total funding need is estimated to be US$271 million for 2016, increasing to US$415 million by 2020. The total costs by category are shown in Figure 3 on page 4.

Financing for ART Commodities

Currently, funding for ART commodities comes primarily from three sources: the Global Fund, PEPFAR, and the GOT. The GOT's contribution for PSM costs is 5.6 percent of total commodity costs per year. As previously mentioned, this arranged allocation by the GOT is a portion of the standard mark-up for PSM expenses. Anticipated commitments from the Global Fund and PEPFAR are shown in Figure 4 on page 5. PEPFAR funding is assumed to remain constant at FY 2015/16 levels from 2017–2020. The current Global Fund funding model grant began in July 2015 and runs until December 2016, contributing a total of US$253 million for ART commodities. Global Fund support is similarly assumed to remain constant at FY 2015/16 levels from 2017–2020, as the number of patients that the Global Fund will support under the current model is based on a client ceiling of 656,794. Figure 4 also shows the financial gap for ART commodities if no other funding sources arise.

There could be significant shortfalls in funding for ART commodities in the coming years, beginning in the 2016 calendar year, when the ART commodity resource gap is estimated to be US$75 million. This gap is expected to increase to US$178 million by 2020 in the absence of further funding commitments. Another important factor is the considerable backlog of payables to the MSD that has accrued from the GOT, estimated to be around US$43 million.[6] It is unclear how much of this

Figure 2: Resource Needs for ARVs and Laboratory Commodities[7]

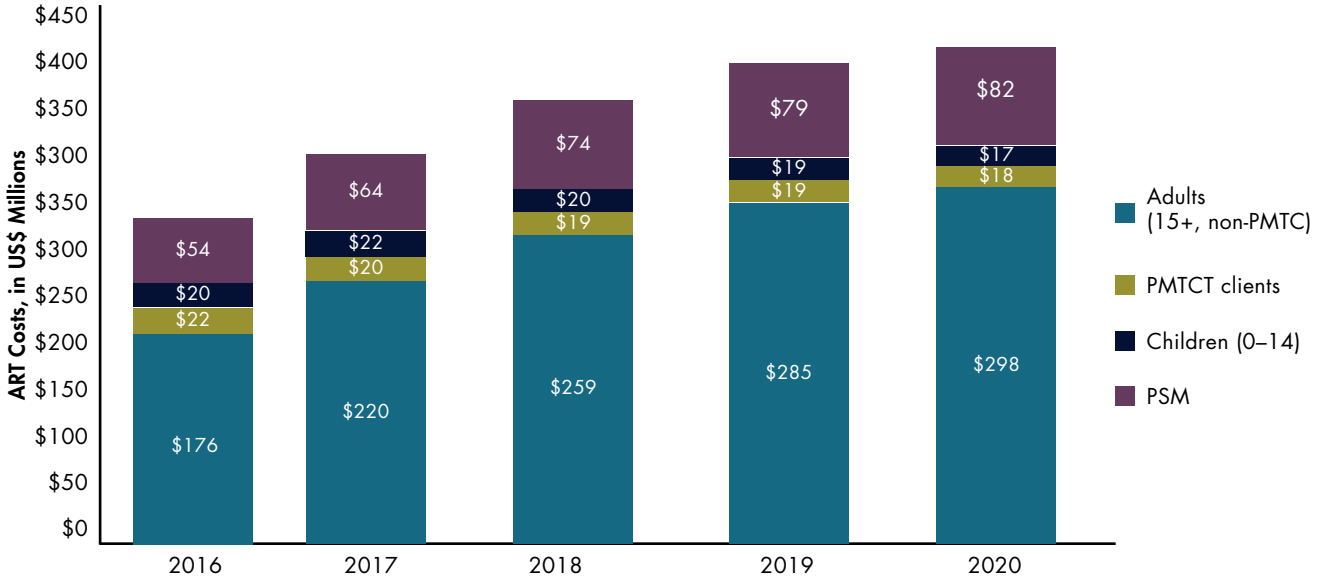
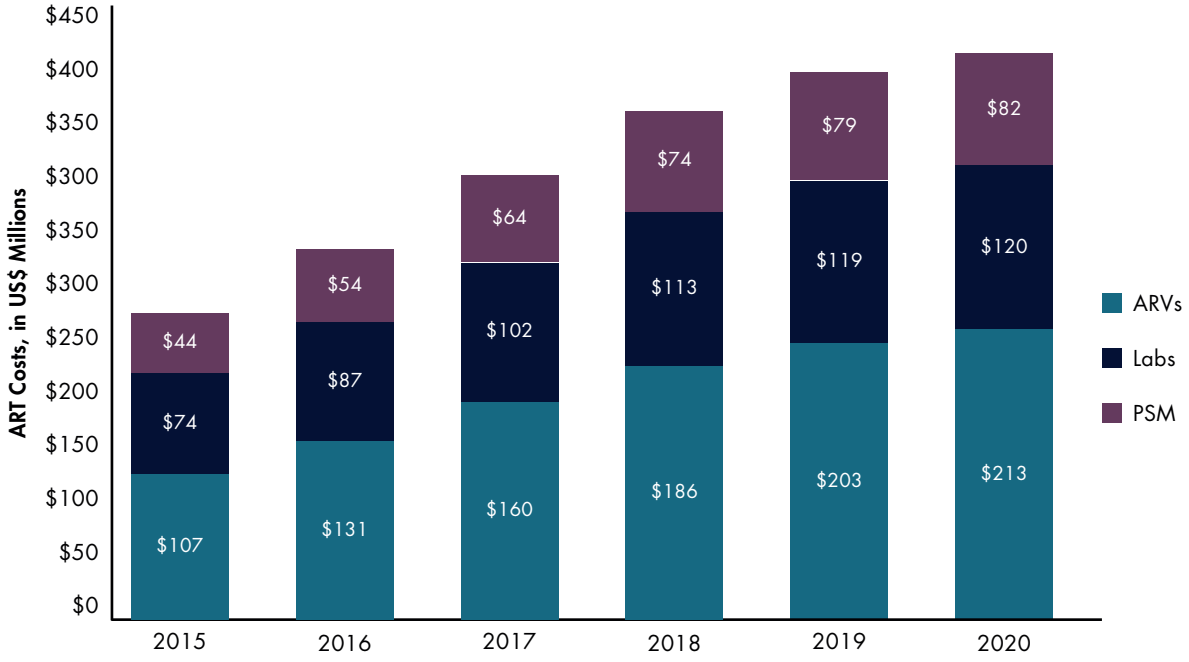


Figure 3: Total ART Costs by Category[8]



payable amount is allocated to ART, but 82 percent of the debt can be attributed to medicines and medical supplies related to vertical programs,[9] with HIV and AIDS accounting for approximately 73 percent of that programming in Tanzania.[10, 11] Therefore, approximately US$26 million could be owed to the MSD for HIV commodities, further increasing the ART resource gap.

The GOT has confirmed a commitment of US$1.4 million to the ATF for FY 2015/16, and a resource mobilization strategy is currently being developed by the Tanzania Commission for AIDS (TACAIDS). However, it is currently unclear how much domestic financing the ATF will raise for HIV and AIDS, or how much of that financing will be allocated for ART in proportion to other HIV and AIDS program areas. In his comments commemorating Worlds AIDS Day, newly elected Tanzanian President John Magufuli reconfirmed his support for improving HIV and AIDS programming, vowing that his government would continue to budget funds for the purchase of ARVs.[12] Given the expected shortfalls in funding, it will be increasingly important for the NACP to deliver HIV services in the most cost-effective and efficient manner possible. To address this point, PEPFAR has pivoted its ART strategy to the subnational level with a focus on those districts with the greatest need for ART.

Health Impact of ART Scale-up

If a solution can be developed to address the substantial gap in funding for ARV commodities, NACP ART scale-up plans are forecasted to reach the UNAIDS 90-90-90 target of 81 percent of PLHIV on ART by 2019, one year ahead of 2020 (Figure 5, page 6). By the end of 2020, Tanzania is projected to exceed the UNAIDS target by an estimated 86,000 patients or more, achieving an ART coverage rate of 87 percent for all PLHIV. The projected ART coverage rates by population category for PLHIV are 86 percent for adults and adolescents (15 years and older), excluding prevention of mother-to-child transmission (PMTCT); 96 percent for pregnant women living with HIV; and 91 percent for children and adolescents 15 years and younger. Most importantly,

Figure 4: Funding Gap for ARV and Laboratory Commodities[13]

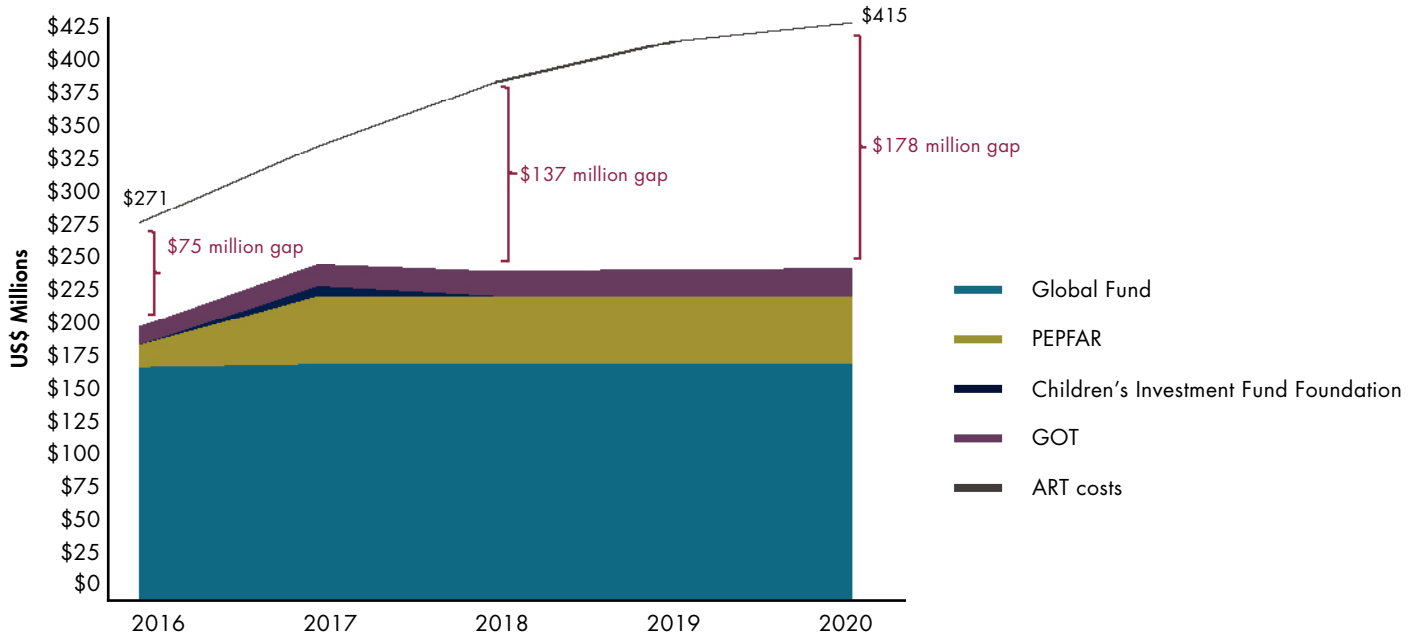


Figure 5: Projected ART Coverage Rates and Progress Toward UNAIDS 90-90-90 Target[14]

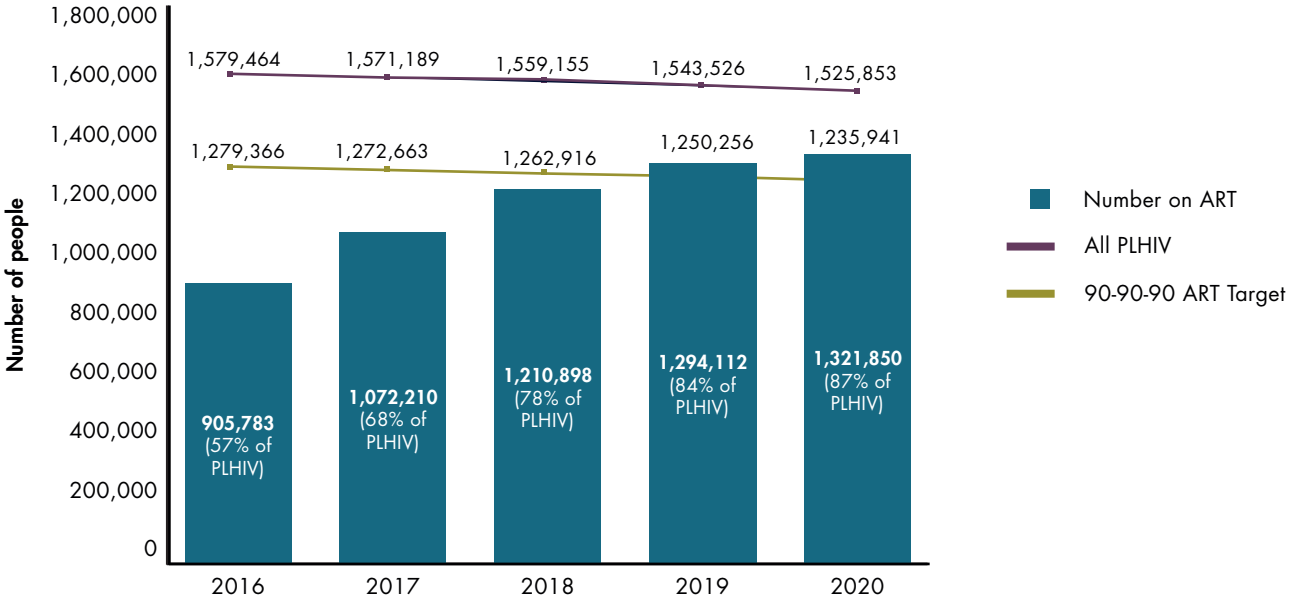
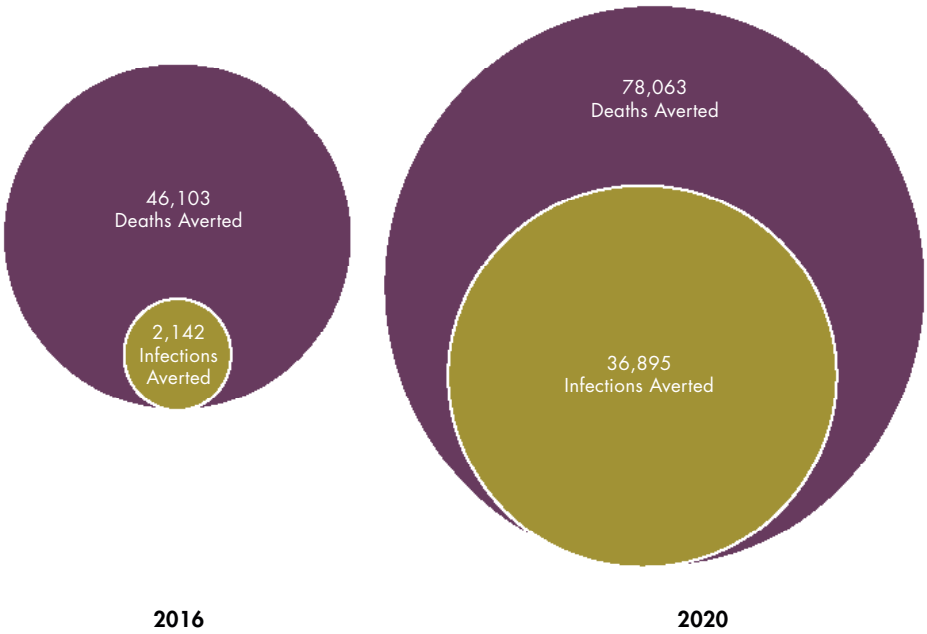


Figure 6: Deaths and Infections Averted Credited to ART Programming[15]



lives will be saved and infections averted as a result of the rapid scale-up. Spectrum outputs indicate that 46,103 deaths and 2,142 infections will be averted per year in Tanzania in 2016, credited to ART programming, with these figures rising to 78,063 deaths and 36,895 infections averted per year by 2020 (Figure 6, page 6). These estimates were derived using the Goals model, modifying a projection file previously calibrated by Avenir Health for the Tanzania HIV/AIDS Investment Case.[16] The Goals model, a Spectrum module that estimates the impact of future prevention and treatment interventions, divides the adult population by risk group and estimates changes in behavior and transmission rates as a result of exposure to key behavior change and biomedical interventions. After inputting the NACP's updated ART treatment targets, the model recalculated new HIV infections as a function of behaviors and epidemiological and biomedical factors.

Conclusion

The important health benefits that result from rapid scale-up of ART will not be realized if there is not enough money available to implement HIV treatment programming. As this study shows, significant funding shortfalls will begin in 2016 and are estimated to persist going forward, with financial gaps estimated at US$75–178 million per year for ART commodities over the next five years, even if PEPFAR and Global Fund funding remains constant (which is not guaranteed). These realities confirm the growing importance of DRM in Tanzania, as resources will clearly be insufficient for treatment at current funding levels, starting next year. The GOT must continue to prepare for the day that it will no longer be able to rely on donor funding for the bulk of its HIV programming.

Notes and References

[1] Government of Tanzania. [Unpublished]. *2015 National (Tanzania mainland) Spectrum Estimates and Projections*.

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[4] NACP, Tanzania. 2015. *22.7.2015 ARVs and LAB Supply Plan: Full Expression of Demand July 2015–Jun2017*. Dar es Salaam: Government of Tanzania.

[5] NACP, Tanzania. 2015. *Performance Framework from November Morogoro Target Setting Meetings*. Morogoro: Government of Tanzania.

[6] Medical Stores Department, Tanzania. 2015. *Approved Annual Business Plan 2015/16*. Dar es Salaam. TZS 92 billion at TZS 2150/1 USD.

[7] HPP, 2015. *Tanzania ART Commodities Costing Model*. Washington, DC: Palladium, HPP.

[8] Ibid.

[9] National Audit Office, Tanzania. 2014. *A Performance Audit Report on the Management of Demand Forecasting and Distribution of Essential Medicines and Medical Supplies to Health Facilities in Tanzania*. Dar es Salaam: Government of Tanzania

[10] 73 percent calculated from Global Fund disbursements allocated to HIV/AIDS from 2012–2015 (Global Fund website. Available at: http://www.theglobalfund.org/en/portfolio/country/?loc=TZA).

[11] Does not include vertical programs other than HIV/AIDS, Tuberculosis, and Malaria; therefore, 73 percent may be a slight overestimation.

[12] *The Insider*. 2015. "Magufuli Cancels AIDS Say Fete to Buy ARVs." December 1, 2015. Available at: http://www.theinsider.ug/magufuli-cancels-aids-day-fete-to-buy-arvs/.

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[15] Government of Tanzania. [Unpublished]. *2015 National (Tanzania mainland) Spectrum Estimates and Projections*; and Avenir Health, UNAIDS, and Johns Hopkins University. 2015. "Modeling Analysis for the HIV Investment Case in Tanzania". Washington, DC: Avenir Health.

[16] Avenir Health, UNAIDS, and Johns Hopkins University. [Unpublished]. 2015. "Modeling Analysis for the HIV Investment Case in Tanzania" (September 15, 2015). Washington, DC: Avenir Health.

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The Health Policy Project is a five-year cooperative agreement funded by the U.S. Agency for International Development under Agreement No. AID-OAA-A-10-00067, beginning September 30, 2010. The project's HIV activities are supported by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). HPP is implemented by Futures Group, in collaboration with Plan International USA, Avenir Health (formerly Futures Institute), Partners in Population and Development, Africa Regional Office (PPD ARO), Population Reference Bureau (PRB), RTI International, and the White Ribbon Alliance for Safe Motherhood (WRA).