



[viral load, early detection, and CD4]) that are essential for the realization of these targets. Since commodities are the key cost drivers in HIV programming, it is critical to estimate their costs and any resulting financial gaps to guide policy discussions on scaling up for achievement of 90-90-90 targets by FY 2018/19.

The achievement of the first and second 90-90-90 targets will require an increase in the number of test kits, ARVs, and laboratory commodities used for patient monitoring. Since the second 90 is already defined as 81 percent of PLHIV on ART, patient targets are not only based on country eligibility guidelines, but also on the number of PLHIV. Thus, the number of patients requiring ART at 90-90-90 is 1.4 million. If Kenya moves to test-and-treat then achievement of the second 90 is more assured, as more people will initiate ART per year.

The only factor that will vary is the mix of patients by CD4. Under test-and-treat, a portion of patients on ART will be those with CD4 >500, while under the current guidelines the patients on treatment are those with CD4 <500. However, it should be noted that the speed of convergence at the set targets is higher with test-and-treat than under current guidelines, as the number put on treatment will be higher because they are not limited by a CD4 cut-off.

Several resource gaps for HIV programs have been estimated in the past (see MOH, 2015). This brief attempts to harmonize the methodologies used in estimating HIV commodity gaps in the past. To do so, major stakeholders (Clinton Health Access Initiative, National AIDS & STI Control Programme, and National AIDS Control Council) were consulted in arriving at the assumption and targets used in the resource-gap estimation model. In this model, two scenarios are considered: financial needs for key commodities under the current guidelines, and a more ambitious “scale-up” scenario. In addition to harmonizing the way Kenya estimates HIV commodities gaps, the model will also support the mobilization of resources toward attaining the 90-90-90 targets.

## Methodology

The data used for this analysis contains commodity quantities from the national HIV forecasting and quantification process (MOH and NASCOP, 2015). This quantification was conducted based on a combination

of morbidity- and consumption-based methods. The ARV quantities were computed on a consumption basis, while lab commodities were determined from morbidity estimates. Viral load tests were calculated based on population estimates and targeted scale-up by the national program. Finally, HIV testing and counseling (HTC) estimates included assumptions of progressively reduced testing by the national program by shifting toward more targeted strategies over the next three years (MOH and NASCOP, 2015).

Funding information was collected from several sources, including the Global Fund to Fight AIDS, Tuberculosis and Malaria’s grant allocation for Kenya; the Country Operational Plan (COP 15) for PEPFAR; other development partners (through a questionnaire); and the Government of Kenya (from printed and Medium-Term Expenditure Framework estimates). Where data were only available for one fiscal year, the same funding level was maintained into the future.

## Results

### Overall Funding Requirements for Commodities (ARVs, labs, and HTC)

The total requirement for HIV commodities for FY 2015/16 is US\$200 million and is expected to rise to US\$344 million by FY 2018/19, while available funding remains constant at US\$174 million through FY 2018/19. This creates a funding gap of US\$26 million in FY 2015/16, which is expected to increase to US\$170 million by 2018/19 (see Table 1). The main driver of this increase is the rise in total costs for ARVs, driven by an increase of over 45 percent in the number of patients on treatment (871,000 in FY 2014/15 to 1.4 million in FY 2018/19). By FY 2018/19, available funding will be enough to cover only 51 percent of the need for key HIV commodities.

Table 1: Estimated Resource Gaps for HIV Commodities (US\$ millions)

Fiscal Year	2015/16	2016/17	2017/18	2018/19
Needs	\$200	\$223	\$313	\$344
Funding	\$174	\$174	\$174	\$174
Gap	\$26	\$49	\$139	\$170

## Breakdown of Resource Gaps, by HIV Commodity and by Type

### ARVs

As shown in Figure 1 below, the total requirement for ARVs is US\$168 million in FY 2015/16, a number that rises to US\$305 million by FY 2018/19. The resource gap for ARVs increases from US\$23 million in FY 2015/16 to US\$160 million in FY 2018/19.

### Testing Kits

The need for HIV testing kits is US\$12 million for FY 2015/16, which reduces to US\$6 million by FY 2018/19. There is no current gap for testing kits and, with the resources available, the need will be met by FY 2018/19 (see Figure 2, below right).

### Laboratory Commodities

Figure 3 (page 4) shows resource needs for laboratory commodities at US\$20 million for FY 2015/16, a number expected to rise to US\$33 million by FY 2018/19—

driven by an increase in the number of patients and the need for monitoring tests as Kenya approaches the 90 percent on treatment target. With available resources flattening at US\$18 million, the financial gap for laboratory commodities will continue to rise, reaching US\$15 million by FY 2018/19.

### Feasibility of Reaching 90-90-90 with Current Resource Base

Figure 4 (page 4) illustrates the trend of resource needs versus available resources for HIV commodities as Kenya progresses toward achievement of 90-90-90 targets. The financial gap is widening: by FY 2018/19, Kenya would need to almost double the available resources to close the gap. With flattening external support, these additional resources can only be mobilized domestically. This means the Kenyan government must double its current annual allocation of US\$20 million to close the gap. Since this is unlikely in the short term, other options should be explored, including engaging the private sector to play a greater role in health financing.

Figure 1. Estimated Funding Gap for ARVs (FYs 2015/16–2018/19), in US\$ millions

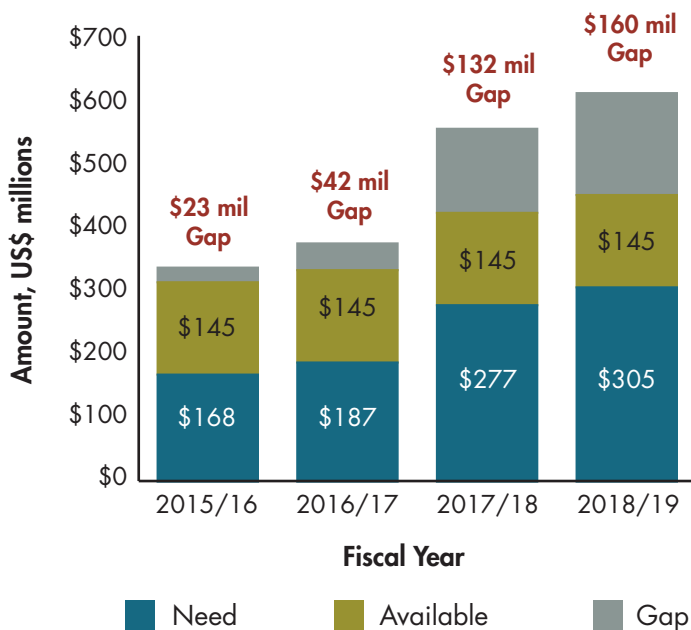
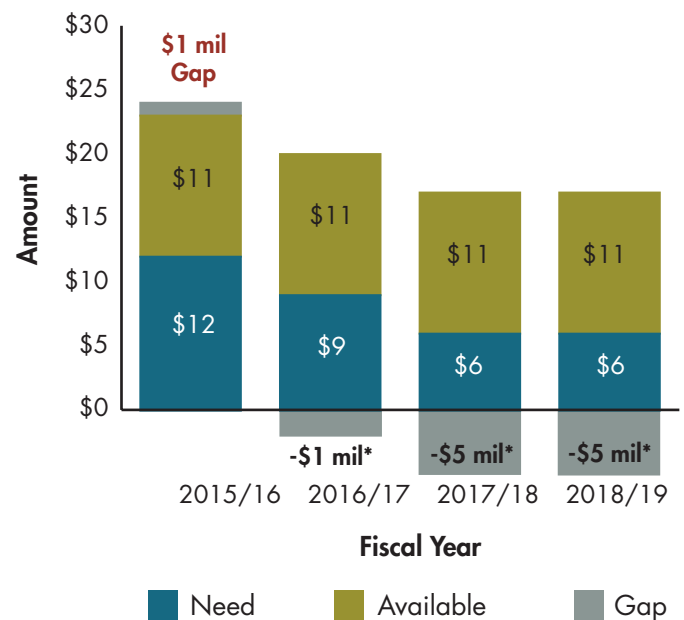


Figure 2. Estimated Funding Gap for HTCs (FYs 2015/16–2018/19), in US\$ millions



\* Figures appearing below axis indicate that available funding outweighs need.

Figure 3. Estimated Funding Gap for HIV Lab Commodities (FYs 2015/16–2018/19), in US\$ millions

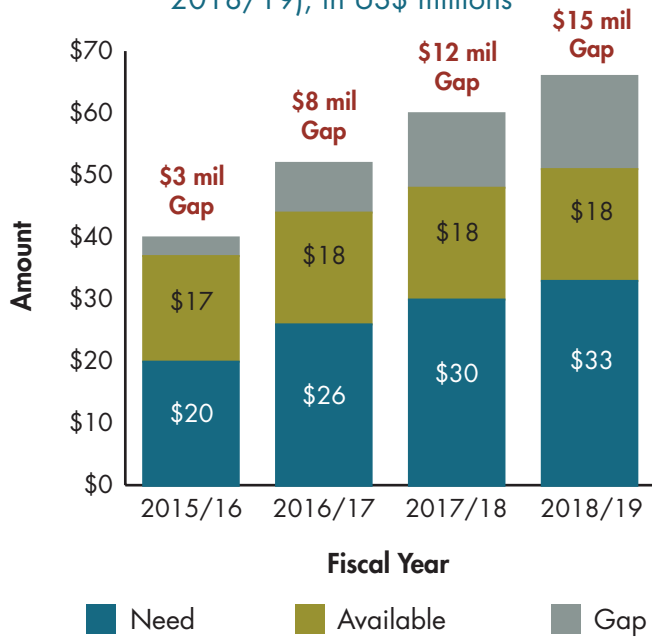
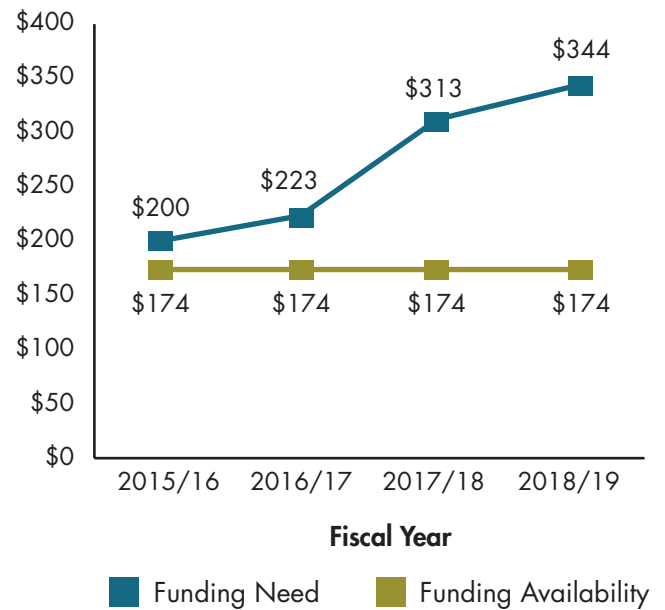


Figure 4. Funding Need and Availability for HIV Commodities, in US\$ millions



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