Annex 1

Methodology for estimating the resource needs for HIV, TB and malaria

As most of the funds raised for the Eighth Replenishment of the Global Fund, 2026-2028, will be implemented in grants over the years 2027-2029, the total resource need has been defined as the amount of funding that would be required over the 2027-2029 period for every country in the Global Fund portfolio to achieve the intervention coverage and impact levels expected in the respective global plans for each disease for 2029.

The resource needs over 2027-2029 are taken from the respective global plans, which are described below. The global resource needs were adjusted to reflect the portfolio of countries eligible for Global Fund support. The disease-specific global plan costing estimates factor in health systems costs differently, and as such are not directly comparable.

A short description of the global plans

For **HIV** the estimate of resources needed for 2027-2029 is based on the latest targets and modeling approach set out in *The Urgency of Now: AIDS at a Crossroads* analysis and *End Inequalities. End AIDS. Global AIDS Strategy 2021-2026.* [1,2,3] The framework for the 2025 targets places people living with HIV and communities at risk at the center of the response and emphasizes that comprehensive and evidence-based HIV services must be tailored to individual subpopulations based on their particular needs. It also recognizes that societal, service and system enablers are needed to reach high levels of service coverage and impact. The HIV response is situated within a multisectoral framework for global health and sustainable development. In the Global AIDS Strategy, coverage scales up from 2020 levels to targets in 2025 and remains constant after 2025. For most interventions this means a linear increase in costs

[1] End Inequalities. End AIDS. Global AIDS Strategy 2021-2026. UNAIDS. Geneva, 2021. https://www.unaids.org/sites/default/files/PCBSS_Global_AIDS_Strategy_2021--2026_EN.pdf.

[2]The Urgency of Now: AIDS at a Crossroads. UNAIDS. Geneva, 2024. https://www.unaids.org/sites/default/files/media_asset/2024-unaids-global-aids-update_en.pdf.

[3] Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB, et al. PLoS Med 18(10): e1003831. https://doi.org/10.1371/journal.pmed.1003831.

through 2025 and then smaller increases after 2025. For treatment, the increases in the number of people on treatment are partially offset by the assumptions of declining cost per person treated.

The Global AIDS Strategy includes accelerated scale-up of HIV prevention and treatment tools over the first few years of the strategy. Specific elements include the rapid scale-up of antiretroviral therapy, significantly higher coverage of prevention interventions for key populations, economic empowerment activities for girls in countries with very high HIV prevalence, voluntary medical male circumcision in priority countries and pre-exposure prophylaxis. The 2030 global target is a 90% reduction in new HIV infections and AIDS-related deaths from 2010 levels.

The Global AIDS Strategy costing estimate also builds in assumptions of shifting more care from facility- to community-based delivery, recognizing the importance of strengthening community systems and improved viral suppression. This will deliver cost savings and improve the uptake of services and bring them closer to the people who need them. It also assumes continued reductions in the average cost of treatment due to continued reductions in drug costs, and reduced visit and testing schedules for those maintaining viral suppression.

The Global AIDS Strategy also includes costs for scaling up societal enablers to address social barriers.

Above site-level costs and resources for procurement and supply chain strengthening, health management information systems, human resource capacity building, and management and administration are included as a fixed mark-up on the direct costs for the interventions, based on their use in the fully costed plan. The strategy emphasizes the importance of addressing inequalities supported by investments in data systems and analysis throughout the planning cycle.

During the period of the Replenishment, mitigating steps needed to tackle resistance are assumed to be taken, with the net result being that the overall effectiveness and costs of the intervention types used are not diminished. That is, new drugs are phased in to maintain the same, or higher, level of effectiveness as assumed now.

For **TB**, the estimate of resources needed for 2027-2029 is based on the Global Plan To End TB 2023-2030[4] and The UN General Assembly (UNGA) High-level Meeting on the Fight Against Tuberculosis 2023.[5] The new strategy is based on a more comprehensive normative approach to estimating costs from approximately 70 TB services and unit costs that are arranged into screening and care algorithms. The algorithms in turn are designed to meet patient needs, while conforming to current World Health Organization (WHO) guidelines. The strategy also includes new service elements such as new diagnostic methods. These include a new point-of-care rapid molecular test, a non-sputum-based test, improved drug sensitivity testing, next-generation sequencing and AI-based ultramobile X-ray screening. Drug regimens included in the costing include four-month or less TB treatment, six-month or less drug-resistant TB treatment and more options for the shorter TB preventive treatment regimens. Health and community systems, private sector engagement, enablers, equity and stigma are also given prominence in the coming strategy period.

Resource needs for TB include the expansion of preventive therapy for child and adult contacts and HIV patients and other populations at high risk of TB infection, implementation of new treatment guidelines and regimens, as well as the implementation of modern diagnostic tools such as X-ray and GeneXpert. In addition, the plan includes laboratory costs, procurement and distribution of commodities, health care utilization and program management costs. Costs related to enabling activities including advocacy and communication, direct patient support, mobile technology, public-private mix activities and community engagement are included. As far as possible, the costing model for TB explicitly accounts for necessary investments in health systems for the provision of the set of TB services included in the global plans, and this is done by making use of WHO's financing database.

Costs for this period include new tools and treatment regimens; it is noted that reaching the 2030 and 2035 milestones of the End TB Strategy continue to require additional new tools not currently available, including improved point-of-care tests and effective TB vaccines.

Estimated resource needs have increased compared to previous TB global plan estimates. Reasons for this include the increasing use of relatively more screening in provider-initiated programs, relatively more costly treatments for drug-resistant TB; scaling up of preventive therapy; modernized diagnostics and enabling activities that

[4] The Global Plan To End TB 2023-2030. The Stop TB Partnership. Geneva, 2022. https://www.stoptb.org/what-we-do/advocate-endtb/global-plan-end-tb/global-plan-end-tb-2023-2030.

[5] Political declaration of the high-level meeting on the fight against tuberculosis. UN General Assembly. 2023. www.stoptb.org/sites/default/files/imported/page/file/16959/file_16959.pdf.

support greater impact, and a significant portion of the planned scale-up occurring during the 2024-2026 period by when several systematic screening programs are assumed to be fully implemented. The eventual reduction in costs that is projected to result from a decrease in the TB burden is partially offset by an increase in costs linked to a drop in overall prevalence and resulting yield.[6] As a result, resources to meet coverage targets of the various screening programs remain substantial post 2027.

For the resource need estimate to roll out the TB vaccine,[7] based on discussions with TB technical partners, the TB resource needs for the 2027-2029 assume that a new TB vaccine will be rolled out in 2029, with a volume of US$2 billion.

The spread of drug-resistant TB, of all types, is modeled, and the cost and effectiveness of treatment is assumed to be modified in future years accordingly. It is assumed that treatment success rates will increase to 90%, reflecting an expansion of treatment options for patients with drug-resistant TB and new drugs (including bedaquiline) and increased patient support and in-patient care.

For **malaria** the estimate of resources needed for 2027-2029 are from the Global Technical Strategy 2016-2030, 2021 Update (GTS).[8] Based on the GTS update, to reach over 80% coverage of currently available interventions, malaria investments, including both international and domestic contributions, need to increase substantially above the current annual spending of US$3 billion. The annual investment will need to increase to an estimated total of US$9.3 billion per year by 2025 and US$10.3 billion by 2030. The cost of implementation has been estimated from the quantities of goods required for expanding interventions, multiplied by the estimated unit cost for the provider to deliver each intervention, and an analysis of the surveillance and financing data available in national strategic plans. It is important to note that the malaria costing does not include the essential health system costs required to deliver case management through the public sector.

Key increases in the resources needed for malaria over the 2027-2029 period are driven by the scale-up of mosquito nets. In addition to increasing insecticide-treated net coverage during this period, there is also a switch to using more costly, new technology nets (pyrethroid-PBO or pyrethroid-chlorfenapyr) to combat pyrethroid insecticide resistance. There are relatively small increases in resources needed as a result of increasing coverage of other interventions during this period (seasonal malaria

[6] An assumed expansion of eligibility criteria for entering clinical evaluation (e.g., patients without clear symptoms of TB are also screened) also leads to a decrease in prevalence among those accessing care.

[7] The analysis uses the Stop TB Partnership's assumptions regarding vaccine unit costs and coverage by 2035.

[8] Global Technical Strategy for Malaria 2016-2030, 2021 update. WHO. Geneva, 2021. https://www.who.int/publications/i/item/9789240031357.

chemoprevention, perennial malaria chemoprevention, malaria vaccine, indoor residual spraying (IRS)), and the costs associated with increasing the coverage of diagnosis and treatment are largely offset by reductions in burden. Costs include scale-up of the following interventions: vector control with long-lasting insecticidal nets or IRS, chemoprevention in children, diagnostic testing of fevers for malaria, malaria case treatment and surveillance. Other program elements were included as fixed costs (following the GTS methodology): program management, surveillance (including routine epidemiological and entomological components, malaria indicator surveys and enhanced surveillance in countries with low levels of transmission) and rapid diagnostic tests for non-malaria fever. The 2021 update emphasizes improvements to efficiency, equity and impact through the use of data to stratify and tailor malaria interventions to the local context, and that a resilient health system underpins the overall success of the malaria response. The projected cost of introducing the malaria vaccine is aligned with projections provided by Gavi, the Vaccine Alliance (Gavi) and funded through Gavi's Investment Opportunity 2026-2030.[9]

[9] Gavi's Investment Opportunity 2026-2030. Gavi, the Vaccine Alliance. 2025. https://www.gavi.org/sites/default/files/investing/funding/resource-mobilisation/Gavi-Investment-Opportunity-2026-2030.pdf.