

POLICY BRIEFS ON

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# ECONOMIC IMPACT OF HIV



## SUMMARY BRIEF #2

# A FISCAL PERSPECTIVE ON THE HIV RESPONSE

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# A FISCAL PERSPECTIVE ON THE HIV RESPONSE

***Because HIV is an infectious disease, an effective response requires a public-health approach and hence a strong government role. Beyond the immediate health effects, investments in the HIV response achieve macroeconomic gains, reduce health and socio-economic inequities, and also yield concrete financial returns. And the big prize – shifting the trajectory of the epidemic so that HIV no longer poses a significant public-health challenge – will yield long-term health and economic gains often not captured in policy analysis.***

Effectively controlling infectious diseases such as HIV (and, similarly, Covid-19) requires a public-health approach and hence a strong government role to defend against their negative health and economic costs. For both, the consequences of an individual's risk behaviour go beyond individuals to the wider community, since infected individuals can transmit the disease to others. Likewise, treating a person living with HIV also benefits more than just the individual, given that a person on treatment is far less likely to transmit HIV to another person. Thus, equitable public provision of HIV services contributes to realising the full societal benefits of HIV prevention and treatment.

The most immediate effects of investments in HIV are the improved health and survival of people living with HIV, and a decline in the number of new infections (Summary brief #1). Beyond this health perspective, investments in HIV also create macroeconomic, socio-economic and financial benefits – some accruing directly to beneficiaries, others (e.g., fiscal revenues, improved health equity) arising from a societal or fiscal perspective.

Investments in treating and preventing HIV yield well-established macroeconomic returns by restoring health and saving lives (Summary Brief #1, Policy briefs #3, #6, #7). Indeed, the global response to HIV and universal access to treatment was in part motivated by the perception that the devastating health consequences would result in catastrophic social and economic impacts, both locally and globally. In some of the worst-affected countries, before treatment was widely available, AIDS had more than doubled overall mortality and caused a five-fold increase in

mortality at ages 15–49 (IHME, 2020). Treatment restores the productivity of people living with HIV and extends their lives, often by decades and during their prime working age. This means that productive capacities are preserved, and GDP is consequently larger because of the treatment roll-out. For example, the working-age population of South Africa is about 7 percent larger now than it would have been without any access to treatment. Using common estimates of how increased working-age population contributes to GDP (Policy brief #3), this means that GDP could be 4–5 percent larger now as a result of treatment scale-up. In addition to improving macroeconomic outcomes and therefore contributing to government revenues, HIV investments serve various development policy objectives indirectly, notably by improving health equity and preventing poverty.

In the absence of free public provision of treatment, treatment would be unaffordable to a large share of the population in many countries. According to cost analyses summarised in the Global Health Cost Consortium's Unit Cost Repository, the average per patient year cost of adult first-line treatment ranged between \$130 and \$984 (in 2020 USD) across countries, sites and types of facility ownership, with a median cost of \$391 (inter-quartile range, \$334–489) (GHCC 2022). At the same time, coverage of any type of insurance across sub-Saharan Africa, where HIV is most prevalent, is very low (7.9 percent of the population across 36 countries where such data were available) and heavily concentrated among richer households (Barasa et al., 2021). And poverty remains widespread in the region. As of 2018, 40 percent of the population of sub-Saharan Africa were living below the poverty line of US\$ 1.90 a day (Schoch & Lakner, 2020). Affordability is a key barrier to healthcare for these populations. HIV treatment costs at least US\$ 100 per year to access privately, a catastrophic expenditure that many households could not afford and would cause a widening and deepening of poverty (in the sense of Wagstaff et al., 2018). Moreover, although drug prices have fallen steeply over the last decades (on the basis of generic manufacturing, bulk procurement through the public sector, and with substantial international support), these reduced prices are not normally accessible to private providers.

For these reasons, free public provision of treatment has been a key contributor to achieving high treatment coverage, which in turn is a cornerstone of the effort to “end AIDS” through early treatment not only for increased survival but also as a prevention measure (UNAIDS, 2014). High treatment coverage is also thought to be a contributor to mitigating socio-economic health inequities, as coverage rates attained in many countries indicate widespread access, and as the limited evidence available suggests that treatment coverage is fairly even across socio-economic categories, or at least no worse than the coverage of other essential health services like birth attendance (Policy briefs #8 and #9).

Free public provision of HIV treatment and prevention programmes also contributes to financial risk protection and alleviating poverty. Poor health is a key cause of poverty, and access to healthcare enables individuals to avoid illness or improve their health, thus avoiding a cause of sustained poverty. Free public provision of HIV services thus contributes to poverty reduction by avoiding HIV-related job and income losses, preserving household income and other household resources, and preventing disruptions in access to education for children living in households affected by HIV (Policy brief #4).

Second, HIV is unique in its high share of donor funding relative to domestic investments in order to make HIV programmes readily affordable to lower-income countries. As a result, policy discussions on the financing of the HIV response are atypical and frequently in part separate from the policy discourse on more general health financing. In 2017, donor funding accounted for more than half of HIV funding for the majority of people living with HIV in low- and middle-income countries (Policy brief #11). Spending decisions therefore reflect a combination of donor policies and the preferences of the domestic government, regarding both health objectives and the socio-economic objectives outlined above (Policy briefs #11 and #12).

HIV policies, however, contribute to fiscal space in other ways, too – fiscal space that can be used for HIV policies or for other government objectives. One way is through increased GDP: as a larger population sustains a larger GDP, the government’s revenue base is larger, fiscal revenues are larger than otherwise, and some of this increase could be used for the HIV budget. This avenue, though, contributes little to refinancing investments in HIV from a fiscal perspective. For example, if each US dollar invested in the HIV response across low- and middle-income countries yielded US\$ 2.6 in additional output (as suggested by Lamontagne et al., 2019, predominantly through increased population size; see Policy brief #2), only some 20 percent of this (and less in many developing

countries), i.e., \$0.5 or one-half of the amount invested, might accrue to the government in additional tax revenues. And because a larger population also requires more public services overall, only a part of these additional revenues can be utilised freely.

The more immediate policy contribution to financing the HIV response is through effective programming and implementation, especially for lower-cost prevention efforts. Under public provision of treatment, each HIV infection requires a sustained financial commitment from the government. While the annual costs of treatment have come down immensely, high treatment coverage and early initiation of treatment mean that this financial commitment caused by each new infection has declined much less. For example, an HIV patient who initiates treatment at a CD4 count of 350 cells/microl can be projected to survive for about 33 years with HIV and receive treatment for 25 years (Haacker, 2016) and – assuming an annual cost, including applicable overheads etc., of US\$ 200 – at a life-time cost of US\$ 5,000.

Effective HIV prevention, by reducing the number of new HIV infections and avoiding the resulting fiscal costs, thus contributes to containing or even reducing the costs of the HIV response overall. Indeed, some HIV prevention interventions such as condoms and male circumcision are frequently considered cost-saving, resulting in financial savings in HIV spending that exceed the costs (Policy brief #16) – even before taking account of further economic returns.

A second important aspect of effective programming and implementation is speed. HIV prevention interventions are most effective when HIV transmission is still high. For example, male circumcision prevents the greatest number of HIV infections when the infection risk for males receiving it is highest. If the scaling-up of male circumcision is slow while infection risk comes down because more people living with HIV receive treatment and are virally suppressed, then (i) more people get infected before they become circumcised, and (ii) male circumcision, when it occurs, makes a smaller contribution to reducing the number of new infections.

Much of HIV programming is about getting the balance right between fast implementation, overcoming capacity constraints, and any increases in costs which might occur as a result of faster implementation. On the programme level, the gains from fast implementation often result in choices between a rapid scale-up of services, followed by a sustained decline in costs as the effects of reduced HIV incidence kick in, and a slower rate of implementation but with lower health gains and more persistent and higher costs in the medium and long terms.

Stepping back, much of HIV programming is about permanently shifting the trajectory of the epidemic and “ending AIDS” as a high-order public-health challenge, allowing countries to spend health budgets on other priorities. The permanent, longer-term gains of HIV programmes are rarely captured in conventional policy analysis, which focuses on the direct effect of policies pursued over a fairly

short period. In doing so, estimates of cost-effectiveness and of economic or financial returns to investments in HIV therefore tend to understate the effectiveness and cost-effectiveness of HIV policies. Effective policy advice needs to communicate the lasting economic and health effects of shifting the trajectory of the epidemic alongside immediate health gains.

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