



Social Return on Investment Kusingata Project Final Results

Conducted by Envoy Partnership

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Executive Summary

The Kusingata project is implemented by N'weti, with partial funding support from Aidsfonds, across the districts of Jangamo, Massinga, and Morrumbene in Inhambane Province, Mozambique. The project strengthens community-based structures supporting HIV case finding, testing, linkage to care, and long-term retention, with the goal of enabling children and mothers living with HIV to live healthy lives and reach their full potential.

Envoy Partnership was commissioned to conduct a Social Return on Investment (SROI) analysis assessing the broader social, health, and economic impacts of the programme and its value for money. Across all valuation scenarios, the programme generates more than three times its investment in measurable social value, with an estimated SROI ratio between **3.1:1** and **3.6:1**.

Approach

The analysis draws on N'weti's routine monitoring, evaluation, and learning data. Various restraints to data collection (including national political instability, sector-wide funding cuts, and limited staff capacity) meant that a pragmatic approach was taken to the model, focusing on building a forecast SROI out of the available primary evidence and secondary research. It provides a conservative estimate of value within the reporting period.

Three outcomes were monetised in the model:

- > Outcome A: Improved health through viral suppression of HIV
- > Outcome B: Reduced mother-to-child transmission (MTCT) of HIV
- > Outcome C: Improved economic resilience through VSL participation

Health outcomes were valued using disability-adjusted life years (DALYs) at MZN 73,918 per DALY (two times Mozambique's 2022 GDP per capita). Economic outcomes were valued at 10% of GDP per capita per VSL participant per year. A combined adjustment multiplier of 37.5% was applied across all outcomes, reflecting 50% attribution (the credit that Kusingata can take for the outcomes) and 25% deadweight (the amount that would have happened anyway).¹

Key Findings

Outcome A: Viral Suppression

An estimated 1,141 people living with HIV achieved viral suppression in 2024 (407 pregnant and breastfeeding adolescents and women; 734 other adults and adolescents). This is estimated to avert 0.1965 DALYs per person per year. The net value after adjustment is MZN 6.2 million over one year, rising to MZN 15.1 million under a medium-term three-year scenario with 20% annual drop-off.

Outcome B: MTCT Prevention

MTCT prevention is the largest source of quantified social value. In the baseline scenario, 407 virally suppressed pregnant women and adolescents are estimated to have averted 146.50 infant infections, generating MZN 76.3 million in combined health and economic savings. An expanded sensitivity scenario — incorporating all 428 women who received a viral load test — yields 154.22 infections averted and a combined net value of MZN 80.4 million.

Outcome C: VSL Economic Resilience

576 participants engaged in VSL groups in 2023. After adjustment, the net social value of VSL participation is estimated at MZN 790,000 over one year, or MZN 1.9 million under the medium-term scenario.

Results

Table 1. Total Net Social Value and SROI Ratios by Scenario (MZN)

Outcome	Scenario 1a Conservative (Baseline MTCT)	Scenario 1b Conservative (Expanded MTCT)	Scenario 2a Medium-Term (Baseline MTCT)	Scenario 2b Medium-Term (Expanded MTCT)
Viral suppression	MZN 6,200,000	MZN 6,200,000	MZN 15,129,000	MZN 15,129,000
MTCT prevention	MZN 76,346,000	MZN 80,393,000	MZN 76,346,000	MZN 80,393,000
VSL economic resilience	MZN 790,000	MZN 790,000	MZN 1,925,000	MZN 1,925,000
Total net social value	MZN 83,336,000	MZN 87,383,000	MZN 93,400,000	MZN 97,447,000
SROI Ratio	3.10:1	3.25:1	3.47:1	3.62:1

Programme investment for the reporting year totalled EUR 414,058 (approximately MZN 26.9 million). Across all scenarios, the programme generates more than three times its investment in measurable social value, with an SROI ratio in the range of 3.1:1 to 3.6:1. These estimates are conservative; several outcome categories, such as improvements in subjective wellbeing, longer-term health gains, and intergenerational effects, could not be monetised and are excluded entirely.

Limitations

Viral suppression data were drawn from the quarter with the strongest reporting coverage and annualised using a conservative projection; actual annual outcomes may differ if uptake varied across earlier quarters. Attribution is applied uniformly at 50% and does not attempt to differentiate between outcome pathways. MTCT prevention relies on transmission risk assumptions drawn from published WHO estimates rather than directly observed programme data. The results should be understood as a credible but conservative estimate of social value, rather than a comprehensive account of the programme's total impact.

1. Introduction



Since 2021, the Kusingata project has been implemented by N'weti, with partial support from Aidsfonds, across the districts of Jangamo, Massinga, and Morrumbene in Inhambane Province, Mozambique. The project focuses on strengthening community-based structures that support HIV case finding, HIV testing services, linkage to care and treatment, and long-term retention in care. These structures include community health workers, community groups, and local leadership.

The overarching goal of the Kusingata project is to ensure that children and mothers living with HIV (LHIV), and those affected by HIV in Inhambane Province, are able to live healthy lives and reach their full potential. To achieve this goal, the programme pursues four core objectives:

- > To create an enabling environment that increases the provision, demand for, uptake of, and community ownership of high-quality community-based and clinical HIV services among pregnant and breastfeeding adolescents and women, as well as children LHIV.
- > To identify children, adolescents, and pregnant and breastfeeding women LHIV and link them effectively to care and treatment services.

- > To support sustained retention in care and adherence to treatment among children, adolescents, and pregnant and breastfeeding adolescents and women LHIV, with the aim of achieving viral suppression.
- > To document programme outcomes and the implementation model to support advocacy efforts and long-term sustainability.

Envoy Partnership was commissioned to conduct a Social Return on Investment (SROI) analysis of the Kusingata programme. The analysis aimed to assess the broader social, health, and economic impacts of the programme on key stakeholders, as well as to explore the value for money delivered by Kusingata.

This report presents the findings of the SROI analysis and outlines the methodological approach used to estimate the social value generated by the Kusingata programme.

2. Methodology

Evaluation Approach

About SROI

SROI is a framework for accounting for value creation, including social, economic, and environmental value. SROI enables organisations to measure how much change is being created or destroyed, and places a monetary value on the outcomes. In particular, an SROI analysis can help an organisation to understand whether a particular project or programme represents value for money.

SROI is linked to the concept of 'Social Value', which Social Value International describes as: "understanding the relative importance of changes that people experience and using the insights we gain from this understanding to make better decisions".

SROI draws on a set of principles of social value to guide best practice, which include stakeholder involvement, transparency, avoidance of double counting, and proportionality. In practice, SROI analyses typically involve mapping outcomes through a theory of change, collecting primary data from stakeholders, and applying financial proxies to estimate the value of observed change.

Application of SROI in This Study

While this study draws on the core principles of SROI, it represents a pragmatic and evidence-informed application of the framework rather than a fully stakeholder-led valuation process. Unlike a standard SROI procedure, this study did not include additional qualitative data collection or stakeholder engagement. Instead it relies on existing research to identify potential outcomes – both evidence from the Kusingata project directly, and from the wider sector. The SROI model relies on existing primary quantitative data rather than introduces new data collection instruments.

This approach was a result of both design and contextual limitations. Firstly, programme data collection was not originally structured with SROI modelling in mind, limiting the availability of certain outcome measures (such as participant-reported wellbeing or longitudinal income data). Further, the evaluation was conducted in an operating environment experiencing significant national political instability, global sector-wide funding cuts, and limited staff capacity for additional data collection.

As a result, the SROI should be understood as a pragmatic, evidence-informed model rather than a comprehensive valuation of all programme impacts. Certain outcomes could not be monetised due to data limitations. The model therefore provides a conservative estimate of value generated within the reporting period.

Importantly, the SROI framework can be built upon in future iterations. With increased data collection, the model could be expanded to capture a broader and more durable range of impacts over time.

Analytical Framework and Scope

Logic Model

SROI is an outcomes-based methodology, and the outcomes for Kusingata were mapped in a logic model format. A logic model is an evaluation tool used to map how project inputs, activities, and outputs are expected to lead to change, grounding the evaluation in established evidence and theory. At the outset of the evaluation, Envoy Partnership and N'weti mapped programme activities to target outcomes to identify the best evidence available to assess programme impact (Appendix A). This logic model informed both the selection of outcomes included in the SROI and the boundaries of what could be credibly valued.

Data Sources

The SROI draws primarily on data from N’weti’s routine monitoring, evaluation, and learning (MEL) systems. These data capture programme reach, service uptake, and key clinical outcomes. Where relevant, secondary data sources were used to support modelling assumptions, such as published evidence on the health impacts associated with viral suppression or the typical duration of economic resilience outcomes.

Scope and Valuation Boundaries

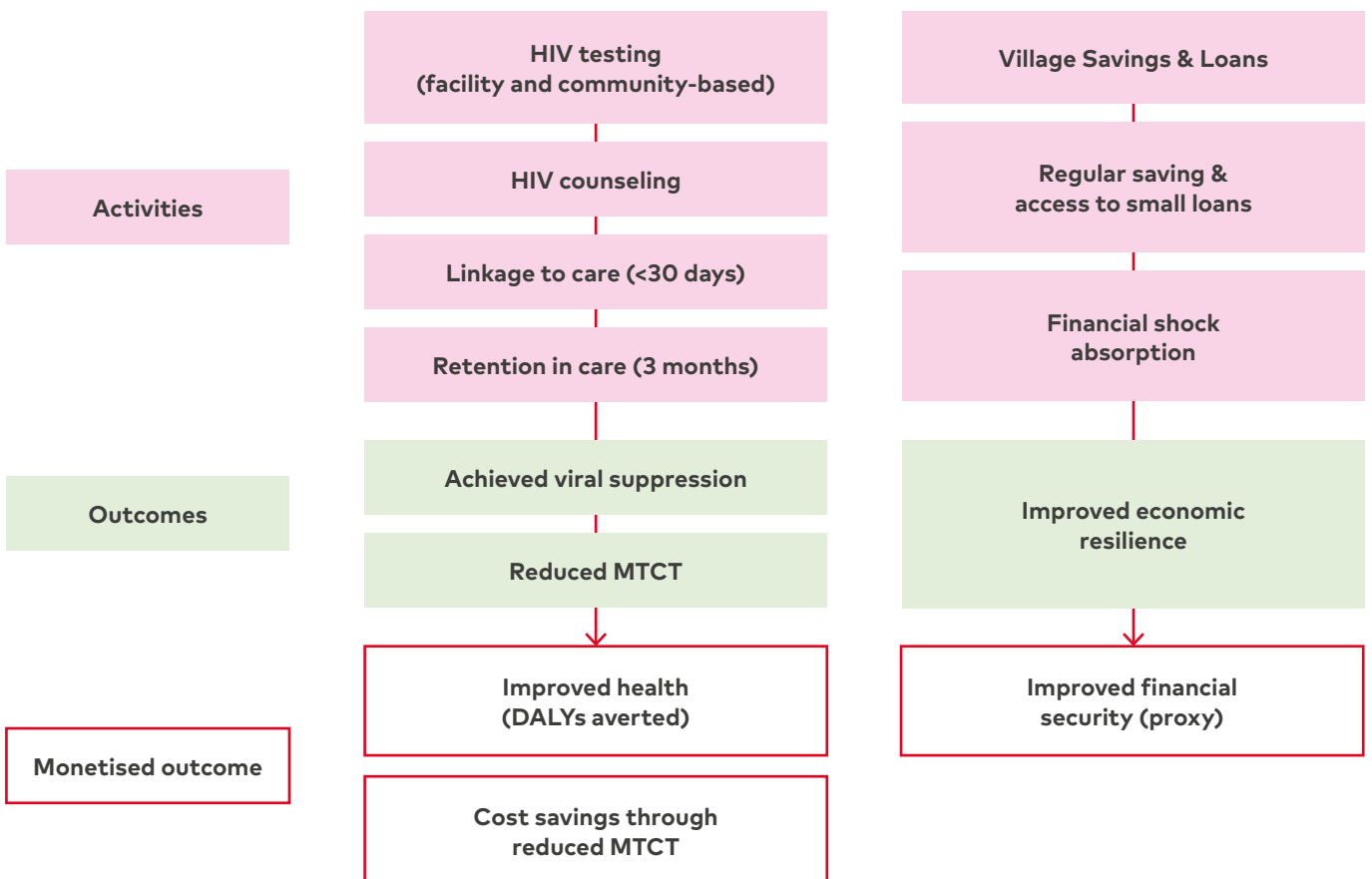
This SROI represents a conservative assessment of social value, as it focuses only on outcomes that can be clearly supported by the available evidence and avoids placing a financial value on changes that cannot be measured directly.

In line with this conservative approach, the analysis does not attempt to monetise improvements in subjective wellbeing as self-

reported wellbeing data were not available, despite wellbeing being a widely recognised benefit of sustained HIV care and economic strengthening interventions. Similarly, in the absence of individual-level longitudinal income data, the SROI does not claim increases in income or household earnings. Instead, economic outcomes are valued using conservative proxies that reflect improved financial security and economic resilience rather than income growth.

The programme delivers multiple interconnected activities that contribute to improved health and economic outcomes. However, only final outcomes with a clear causal pathway and robust evidence are monetised (Figure 1). Activities such as HIV testing, counselling, linkage to care, and retention are essential enabling pathways, but their social value is fully realised through the achievement of viral suppression and are therefore not monetised separately to avoid double counting.

Figure 1. Outcome pathways and monetisation logic



Outcome Valuation

Valuation of Health Outcomes

Health outcomes are modelled separately for key subgroups where data are available and where subgrouping materially affects valuation, including pregnant and breastfeeding women, adolescents aged 10–19, and other adults LHIIV.



Health outcomes in this model are primarily valued using health-economic methods, drawing on disability-adjusted life years (DALYs) to estimate changes in health status associated with programme outcomes. DALYs are a composite measure of disease burden that combine:

- > years of life lost due to premature mortality (YLLs), and
- > years lived with disability (YLDs)

One DALY represents the loss of one year of healthy life and is widely used to compare disease burden and health gains across populations and interventions.

DALY estimates are derived from the Global Burden of Disease (GBD) framework, which provides country-specific life expectancy and epidemiological modelling inputs. While disability weights are globally standardised, life expectancy and survival assumptions are regionally contextualised.

DALYs are monetised using a value equivalent to two times GDP per capita, expressed in

Mozambican Metical (MZN). This valuation approach is aligned with the Human Capital Approach, which takes the mid-point of the 1 to 3 times GDP per capita. The mid-point has been chosen so that the approach is more inline with other studies, and avoids either over- or under-claiming.

In this model, 1 DALY is valued at MZN 73,918.31, two times Mozambique's 2022 GDP per capita (USD 578.30, World Bank).

Valuation of Economic Wellbeing

In the absence of participant-reported financial wellbeing measures or individual-level longitudinal income data, economic outcomes are modelled through evidence of improved financial resilience among participants in village savings and loan associations. To reflect the welfare benefit of increased financial security – rather than income growth – improved economic wellbeing was valued at 10% of Mozambique's 2022 GDP per capita (36,500 MZN) per participant over one year.

Using a proportion of GDP per capita is a standard approach in SROI where direct income effects cannot be robustly measured. The 10% assumption represents a conservative estimate of partial improvements in financial security rather than full income replacement. This proportion aligns with SROI guidance on proportionality and avoidance of over-claiming and sits at the lower end of values typically applied to partial wellbeing improvements in SROI practice.²

Adjustments

SROI analyses also account for the following variables before finalising the total social value:

- > **Drop-off** reflects any reduction in the strength of an outcome over time where benefits diminish in subsequent years.
 - To reflect uncertainty regarding duration and persistence of outcomes, two valuation scenarios were modelled. This reflects best practice in impact modelling where long-term effects may extend beyond the reporting period but cannot be directly observed within available data.

- **Conservative scenario** – Outcomes are valued over one year only.
 - **Medium-term scenario** – Outcomes are assumed to persist for three years, with a 20% annual drop-off to reflect diminishing intensity of benefits over time.
 - For prevention of mother-to-child transmission (MTCT), benefits are modelled as lifetime DALYs averted, so drop-off is not applied.
- > **Displacement** considers whether positive outcomes for one group might incur negative outcomes for another. No displacement was applied; the logic model does not suggest that programme outcomes result in negative effects/ reduced outcomes for others.
- > **Attribution** accounts for the contribution of other actors, including the Ministry of Health, national HIV policies, and other donor investments.
- A 50% attribution rate was applied to reflect the shared responsibility between facility-based antiretroviral therapy (ART) provision and community-based interventions, including case finding, reintegration and adherence support, and preventive home visits.
 - Community-based reintegration and adherence support are not routine components of standard facility-based ART delivery and therefore represent an incremental contribution beyond state provision. In the absence of a formal counterfactual, allocating half of observed gains to system-level factors is a fair assumption (Nicholls et al., 2012).^{3, 4}
- > **Deadweight** asks how much of the outcome would have occurred without the programme.
- National viral suppression rates in Mozambique remain below optimal coverage levels, indicating that full suppression requires some structured adherence support. In the absence of a comparison group, deadweight was set at 25% for health outcomes.
 - This reflects the fact that while ART

is available through the Ministry of Health, achieving and sustaining viral suppression and preventing MTCT requires consistent adherence, retention, and follow-up. Evidence from sub-Saharan Africa indicates that community-based adherence and retention support materially improve treatment outcomes compared to facility-only care.⁵ Given persistent gaps in viral suppression and retention nationally, it would be unrealistic to assume that a large proportion of observed improvements would have occurred without programme support.

Summary of Valuation Scenarios

- > **Scenario 1 (Conservative):** Health and economic outcomes valued over one year only.
- > **Scenario 2 (Medium-term):** Viral suppression and economic resilience assumed to persist for three years with 20% annual drop-off.
 - Prevention of MTCT is valued as a lifetime health gain in both scenarios, reflecting the irreversible nature of infant HIV infection.
 - Deadweight (25%), attribution (50%), and displacement (0%) were applied consistently across outcomes. The adjusted multiplier is calculated as: $(100\% - \text{Deadweight}) \times \text{Attribution} \times (100\% - \text{Displacement})$, i.e. $(100\% - 25\%) \times 50\% \times (100\% - 0\%)$, i.e. $75\% \times 50\% \times 100\%$, = 37.5%, or 0.375

Data Coverage and Cohort Selection

In July 2023, a new three-year joint plan for Mozambique was developed with Breakthrough Partnership partners – Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), Paediatric–Adolescent Treatment Africa (PATA), and UNICEF – covering the period August 2023 to July 2026. Due to limitations in N'Weti's data monitoring systems, activities and outcomes implemented under this new plan could not be directly attributed to Aidsfonds funding. Envoy Partnership therefore requested that N'Weti provide the most recent impact data funded exclusively by Aidsfonds. As a result, most of the data used in the model comes from 2022, the most recent year for which funding sources and outcomes could be clearly separated.

Viral suppression and retention outcomes were modelled using Q4 2024 programme data, which provided the strongest available reporting coverage. As noted by N'weti, reporting completeness for 3-month retention and viral load suppression improved over time, and the highest-quality follow-up data were available for individuals who began receiving preventive home visits in Q2 2024. Three-month retention for this cohort was assessed in Q3 2024, and viral load results were available for most participants in Q4 2024.

To estimate annual programme reach, Q4 2024 figures were extrapolated to a full-year estimate by multiplying by four and applying a 10% downward adjustment to account for potential variation in uptake, reporting completeness, or service delivery across earlier quarters. This produces a conservative annual estimate that reflects the programme's sustained activity throughout the year while avoiding direct reliance on quarters where follow-up data were less complete.

This approach represents a middle ground between two alternatives: valuing only the Q4 cohort (which would significantly understate annual programme reach) and assuming uniform quarterly performance (which cannot be directly verified from the available data). The 10% adjustment is intended to ensure that the annualised estimate remains conservative relative to actual programme delivery.

3. Calculations

The following section sets out the calculations used to estimate the monetary value of each outcome.

Outcome A: Improved health through viral suppression

To avoid double counting, viral suppression was treated as the primary monetised health outcome. Intermediate indicators such as HIV testing, linkage to care, and short-term retention were used to inform interpretation of programme performance but were not monetised separately.

The number of people achieving viral suppression was taken from programme monitoring data (viral load results for Q4 2024) and disaggregated by pregnant and breastfeeding women LHIV, other people LHIV, and adolescents aged 10–19 LHIV within each group.

Summary of outcome valued: Improved health through viral suppression

Definition: Reduced HIV-related health burden for people LHIV who achieve viral load suppression, valued as one year of improved health during the reporting period.

What is not valued: Longer-term (multi-year) health gains, reduced onward transmission, or broader wellbeing improvements beyond the measured health state change.

DALYs averted were estimated as the reduction in disability associated with moving from a symptomatic HIV health state to a stable health state on ART. Disability weights were drawn from Global Burden of Disease HIV sequela estimates.⁶ The “before” health state was modelled as symptomatic HIV without anaemia, and the “after” health state was modelled as symptomatic HIV/AIDS receiving ART without anaemia (Table 1).

Table 1. Disability weights for HIV health states

Health state	Disability weight
Before: Symptomatic HIV without anaemia	0.2745
After: HIV/AIDS with ART without anaemia	0.0780

The annual disability reduction attributable to viral suppression was therefore:

$$\Delta DW = 0.2745 - 0.0780 = 0.1965 \text{ DALYs per person-year}$$

Total DALYs averted over the one-year reporting period were calculated as:

$$\text{DALYs averted} = N_{\text{suppressed}} \times \Delta DW \times 1$$

where $N_{\text{suppressed}}$ is the number of individuals LHIV with confirmed viral suppression (Table 2).

Table 2. DALYs averted and gross value by subgroup

Stakeholder subgroup	N with viral suppression (2024 estimate)	DALYs/ person -year	DALYs averted (1 year)	Value per DALY (MZN)	Gross value (MZN)
Pregnant & breastfeeding adolescents and women LHIV	407	0.196	79.73	73,918	5,894,000
Other adults and adolescents LHIV	734	0.196	143.94	73,918	10,640,000
Total	1141		223.67		16,534,000

Note: 2024 annual estimate was based on Q4 2024 data for pregnant and breastfeeding adolescents and women LHIV (n = 113) and other adults and adolescents LHIV (n = 204) with viral suppression.

To calculate the net value MZN, we multiply the MZN gross value by the average adjustment multiplier of 37.5% (deadweight = 25%; attribution = 50%).

Scenario 1 (Conservative, 1 year of benefits)

$$16,534,000 \times 0.375 = \text{MZN } 6,200,000$$

Thus, the net value over one year is **MZN 6,200,000**.

Scenario 2 (Medium-term, 3 years with 20% drop-off)

We take the total net value MZN and apply a 20% drop-off factor over 3 years:

$$F_{3y} = 1 + 0.8 + 0.64 = 2.44$$

$$\text{Net value}_{A_{3y}} = 6,200,108 \times 2.44 = \text{MZN } 15,129,000$$

Thus, the net value over 3 years is **MZN 15,129,000**.



Disclosure support tools



Outcome B: Reduced mother-to-child transmission of HIV (infections averted in infants)

MTCT of HIV can occur during pregnancy, labour/delivery, and breastfeeding. Without intervention, MTCT risk is commonly cited in the range of 15–45 percent.⁷ Viral suppression is the strongest clinical marker of reduced transmission risk; WHO notes that when viral load is suppressed, transmission risk is negligible or almost zero.⁸

Because the prevention of infant HIV infection generates lifetime health gains, this outcome is modelled using a lifetime DALY framework. To estimate lifetime health gains associated with preventing paediatric HIV infection, the model applies 14.95 DALYs per HIV infection, based on published DALY estimation methodologies used in HIV cost-effectiveness analyses.⁹

Drop-off is not applied as the benefit of an averted infection does not diminish over time.

Baseline MTCT Scenario (Virally Suppressed Pregnant Women and Adolescents)

Health Savings

Programme data indicate that 113 pregnant and breastfeeding women and adolescents achieved viral suppression in Q4 2024. To estimate annual reach, this figure is multiplied by four and then adjusted by 0.9 to provide a conservative projection (n = 407).¹⁰

To reflect differing transmission risks by care status, the following conservative assumptions were applied:

- > Baseline MTCT risk (without effective ART engagement): 40% (Falls within the WHO-reported 15–45% range.)
 - > MTCT risk among virally suppressed women: 4%
- Risk reduction: 0.40 - 0.04 = 0.36**

The 4% transmission risk assumption for virally suppressed women is drawn from a systematic review and meta-analysis conducted by Dugdale et al¹¹, which indicates that effective ART and viral suppression reduce transmission risk to below 5% in breastfeeding populations and to near-zero in non-breastfeeding contexts. A 4% estimate was selected as a conservative, policy-aligned midpoint. This assumption is also consistent with a previous SROI evaluation of Aidsfonds' Towards an AIDS Free Uganda programme, which applied the same 4% estimate drawn from a cost-effectiveness study of combination ART for the prevention of MTCT in Uganda.¹²

To estimate the number of HIV infections averted, we multiply the change in risk reduction with the number of suppressed participants recorded:

$$\text{Infections averted} = 407 \times 0.36 = 146.50$$

Which we then multiply by the number of DALYs averted per HIV infection:

$$\text{DALYs averted} = 146.50 \times 14.95 = 2,189.40$$

Assuming 1 DALY = MZN 73,918.31, we multiply this value with the number of DALYs averted to find the gross value:

$$\text{Gross value} = 2,189.40 \times 73,918.31 = \text{MZN } 161,836,570$$

To find the net value, we apply the average adjustment multiplier of 37.5% (deadweight = 25%; attribution = 50%) to the gross value:

$$\text{Net value} = 161,836,570 \times 0.375 = \text{MZN } 60,689,000$$

Thus, the net social value associated with the reduction of MTCT HIV transmission through viral suppression is estimated at **MZN 60.69 million**.

Economic Savings

Under conservative assumptions based on pediatric ART cost data from Zambia and multicountry PEPFAR programmes, and on pediatric HIV modelling from South Africa, each case of vertical HIV transmission averted in Mozambique is expected to save approximately 3,000–6,000 USD (190,000–380,000 MZN) in discounted lifetime HIV-related healthservice costs (provider perspective).^{13, 14, 15, 16, 17}

Using the midpoint value, each case of vertical HIV transmission averted is expected to save 285,000 MZN in economic costs.

As with health outcomes, deadweight and attribution adjustments are applied to economic savings to reflect that a proportion of MTCT prevention would have occurred through routine services and that the programme shares responsibility with government ART provision.

Multiplying this number by the total number of infections averted to find the gross value:

$$146.50 \times 285,000 \text{ MZN} = 41,753,000 \text{ MZN}$$

To find the net value, we apply the average adjustment multiplier of 37.5% (deadweight = 25%; attribution = 50%) to the gross value:

$$41,753,000 \text{ MZN} \times 0.375 = 15,657,000 \text{ MZN}$$

Thus, the total amount saved in healthcare costs is **15,657,000 MZN**.

Total Savings

Combining the health (60,689,000 MZN) and economic savings (15,657,000 MZN) leads to a total savings of **76,346,000 MZN**.

Expanded Sensitivity Scenario (All VL-Tested Women)

Health Savings

The baseline SROI model estimates MTCT using only women with confirmed viral suppression. However, ART reduces transmission risk even where viral suppression is not confirmed. Therefore, to more fully reflect the programme's potential impact, an expanded scenario is modelled using all eligible pregnant and breastfeeding women who took a VL test. This expanded scenario does not replace the baseline model; rather, it provides a sensitivity analysis to illustrate the broader health impact associated with ART engagement.

The MTCT risk for women in care but not virally suppressed is significantly higher than for those with suppressed viral loads, often nearing 10%.¹⁸ For simplicity, the expanded scenario applies a uniform risk reduction of 0.36 across all 428 women. A disaggregated calculation — applying 0.36 to the 407 virally suppressed and 0.30 (10% risk reduction) to the 21 non-suppressed — would yield 152.8 infections averted, reducing the expanded MTCT net value by approximately MZN 600,000. This does not materially affect the SROI ratio.

Programme data indicate that 119 pregnant and breastfeeding women and adolescents measured their viral load in Q4 2024, 6 of whom were not virally suppressed. To estimate annual reach, this figure is multiplied by four and then adjusted by 0.9 to provide a conservative projection (n = 428).

To estimate the number of HIV infections averted, we multiply the change in risk reduction with the number of suppressed participants recorded:

$$428 \times 0.36 = 154.22 \text{ infant infections averted}$$

Which we then multiply by the number of DALYs averted per HIV infection:

$$\text{DALYs averted} = 154.22 \times 14.95 = 2,305.65 \text{ DALYs}$$

Assuming 1 DALY = MZN 73,918.31, we multiply this value with the number of DALYs averted to find the gross value:

$$\text{Gross value} = 2,305.65 \times 73,918.31 = \text{MZN } 170,429,663$$

To find the net value, we apply the average adjustment multiplier of 37.5% (deadweight = 25%; attribution = 50%) to the gross value:

$$\text{Net value} = 170,429,663 \times 0.375 = \text{MZN } 63,911,000$$

Thus, the net social value associated with a reduction of MTCT transmission in this expanded scenario is **MZN 63,911,000**.

Economic Savings

Applying the previously calculated 285,000 MZN of economic savings per case of vertical HIV transmission in Mozambique, we multiply this number by the total number of infant infections averted in this expanded scenario:

$$154.22 \times 285,000 = 43,953,000$$

To find the net value, we apply the average adjustment multiplier of 37.5% (deadweight = 25%; attribution = 50%) to the gross value:

$$43,953,000 \times 0.375 = 16,482,000 \text{ MZN}$$

Thus, the total amount saved in healthcare costs is **16,482,000 MZN**.

Total Savings

Combining the health (63,911,000 MZN) and economic savings (16,482,000 MZN) leads to a total savings of **80,393,000 MZN**.

Outcome C: Improved economic resilience through VSL participation

The programme supports economic strengthening through both Village Savings and Loan (VSL) groups and income-generating activities. For the purposes of this SROI, only outcomes associated with VSL participation are monetised. This decision reflects both the strength of the available evidence and the need to avoid double counting. VSL participation is a well-measured pathway to improved financial resilience, with strong evidence linking savings mechanisms to increased financial security. In contrast, income-generating activities were undertaken by a smaller subset of participants, with limited data available on income levels, profitability, or sustainability over time.

Programme reports provide comparative evidence across reporting periods on savings behaviour, graduation from savings cycles, and continued participation in income-generating activities. Although these data suggest that economic resilience gains persist beyond the reporting period, the SROI values outcomes over one year in the absence of individual-level longitudinal income data.

Summary of outcome valued: Improved economic resilience

Definition: Increased financial security and ability to cope with shocks via participation in VSLs.

What is not valued: Income growth, profits, or business earnings.

In the absence of participant-reported financial wellbeing or longitudinal income data, improved economic resilience was valued as a **proportion of national GDP per capita** using a **GDP-based proxy**:

- > **GDP per capita:** 36,500 MZN (2022 – nominal)
- > **Proportion applied:** 10% of GDP per capita

This value is multiplied by the number of annual VSL participants in 2023. The economic resilience effect of VSL participation is not expected to differ materially by participant subgroup, so the SROI therefore values the outcome at the level of VSL participation overall.

Participants Reached (2023): 576

Gross value:

$$\text{Participants} \times \text{Proportion of GDP Per Person/Year} = 576 \times 3,650$$

$$576 \times 3,650 = 2,100,000 \text{ MZN}$$

And then applying the adjustment of 0.375 (see methodology section):

Scenario 1 (Conservative, 1 year of benefits)

$$2,100,000 \times 0.375 = 790,000 \text{ MZN}$$

Thus, the net social value associated with improved health through VSL participation is estimated at **approximately MZN 790,000** over the reporting period.

Scenario 2 (Medium-term, 3 years with 20% drop-off)

Using the same 3-year drop-off factor as Outcome A ($F_{3y} = 2.44$):

$$\text{Net value}_{c3y} = 788,400 \times 2.44 = \text{MZN } 1,925,000$$

Thus, the net value over 3 years is **MZN 1,925,000**.

4. Results

Summary of Valuation Scenarios

Two valuation scenarios were modelled to reflect uncertainty regarding the duration of outcomes:

- > **Scenario 1 (Conservative):** Health and economic outcomes valued over one year only.
- > **Scenario 2 (Medium-term):** Viral suppression and economic resilience assumed to persist for three years with 20% annual drop-off.

Prevention of MTCT is valued as a lifetime health gain in both scenarios, reflecting the irreversible nature of infant HIV infection.

SROI Ratio

In 2022, the programme received a total investment of EUR 414,058 from multiple

fundors, including Aidsfonds (EUR 212,734.48). Using average 2022 exchange rates, total programme investment is estimated at approximately MZN 26.9 million. The following table divides the programme investment by the total net social value to calculate the SROI ratio. The last column indicates the total amount of social value in MZN for every 1 MZN invested.

The SROI ratio represents the estimated social value generated for every 1 MZN invested in the programme during the funding year. The range reflects differences in valuation assumptions, including outcome duration and transmission modelling scenarios. Across all scenarios modelled, the programme generates more than three times its investment in measurable social value. These estimates remain conservative, as several outcome categories were not monetised.

Table 3. Total Net Social Value by Valuation Scenario (MZN)

Outcome	Scenario 1a: Conservative (Baseline MTCT)	Scenario 1b: Conservative (Expanded MTCT)	Scenario 2a: Medium-Term (Baseline MTCT)	Scenario 2b: Medium-Term (Expanded MTCT)
Viral suppression	6,200,000	6,200,000	15,129,000	15,129,000
MTCT	76,346,000	80,393,000	76,346,000	80,393,000
VSL economic resilience	790,000	790,000	1,925,000	1,925,000
Total net social value	83,336,000 MZN	87,383,000 MZN	93,400,000 MZN	97,447,000 MZN

Table 4. SROI Ratios (26.9M investment)

Scenario	Net Value (MZN)	SROI Ratio
Conservative – Baseline	83,336,000 MZN	3.10:1
Conservative – Expanded	87,383,000 MZN	3.25:1
Medium-Term – Baseline	93,400,000 MZN	3.47:1
Medium-Term – Expanded	97,447,000 MZN	3.62:1

5. Discussion

This SROI analysis estimates that the Kusingata programme generated between MZN 83 million and MZN 97 million in net social value, corresponding to an SROI ratio of between 3.1:1 and 3.6:1. This suggests that the programme represents strong value for money, with each MZN invested generating more than three times its value in social returns.

These findings should be interpreted in light of the conservative methodological choices applied throughout the model. Several outcome categories that are widely recognised as benefits of sustained HIV care and economic strengthening – including improvements in subjective wellbeing, longer-term health gains, sustained income growth, and intergenerational effects – could not be monetised due to data limitations and are excluded entirely. The true social value of the programme is therefore likely to be higher than these estimates suggest.

Interpretation of Findings

The Structural Importance of MTCT

The majority of quantified social value arises from the prevention of mother-to-child transmission of HIV. Preventing infant HIV infection generates substantial lifetime health gains, which are appropriately valued using a lifetime DALY framework. Unlike annual health state improvements, avoided paediatric infections represent irreversible impacts whose benefits accrue over the full lifespan of the child.

Even modest changes in assumptions regarding maternal viral suppression or ART engagement significantly affect the SROI ratio, underscoring the centrality of prevention within the programme's impact pathway. This reflects a well-established public health principle: preventing new HIV infections produces disproportionate long-term social and economic returns relative to

treatment alone. For funders, this highlights the strategic importance of investing in community-based interventions that support maternal retention in care and viral suppression, where the return on investment is greatest.

Duration and Persistence of Outcomes

The difference between the conservative and medium-term scenarios illustrates the sensitivity of the model to outcome persistence. When viral suppression and economic resilience outcomes are assumed to persist for three years with modest annual decline, the SROI ratio increases from 3.1:1 to 3.5:1 in the baseline model.

In practice, ART provision in Mozambique is delivered through public health systems, and community-based support structures strengthen retention rather than replace state provision. It is therefore plausible that benefits extend beyond a single year, particularly where preventive home visits and community support improve adherence behaviours. However, the extent to which outcomes persist without continued programme support remains an open question, and the conservative scenario provides a useful lower bound.

Attribution and Shared Contribution

The programme operates within a broader ecosystem of HIV service delivery. ART provision, clinical monitoring, and national HIV policy are delivered through government systems and international funding mechanisms, and additional programme activities were co-financed by other partners during the reporting period.

Attribution was set at 50% across outcomes, reflecting this shared contribution. At a ratio of 3.1:1 or above, the programme demonstrates strong value for money even after allocating half of all observed gains to other actors. This is a deliberately cautious assumption; community-based case finding, reintegration

of lost-to-follow-up clients, adherence support, and preventive home visits are not routine components of facility-based ART delivery, and there is a reasonable case that the programme's incremental contribution exceeds 50% for some outcome pathways. The model does not make this claim, but it is worth noting that the results are robust to the conservative attribution rate applied.

Limitations

Several limitations should be considered when interpreting these results.

First, viral suppression and retention data were drawn from Q4 2024, the quarter with the strongest reporting coverage, and annualised using a conservative projection (quarterly figures multiplied by four with a 10% downward adjustment). While this approach avoids understating annual programme reach, it assumes that Q4 performance is broadly representative of earlier quarters. If uptake or reporting completeness varied significantly across the year, actual annual outcomes may differ from the estimates used here.

Second, the model excludes a range of outcomes that could not be robustly monetised, including improvements in subjective wellbeing, longer-term health benefits beyond the modelled time horizon, sustained income growth, and intergenerational effects. The SROI therefore captures only a subset of the programme's total impact.

Third, attribution is deliberately conservative, reflecting the shared contribution of government ART provision and co-financing partners. The 50% rate is applied uniformly across outcomes, and does not attempt to differentiate between outcome pathways where the programme's contribution may vary.

Fourth, MTCT prevention — the largest value driver — relies on assumptions about baseline transmission risk (40%) and residual risk under viral suppression (4%). These are drawn from published WHO estimates but are not directly observed in the Kusingata programme population. Sensitivity to these assumptions is partially addressed through the expanded scenario, but the model remains dependent on external evidence for transmission probabilities.

Taken together, these limitations mean the results should be understood as a credible but conservative estimate of social value, rather than a comprehensive account of the programme's total impact.

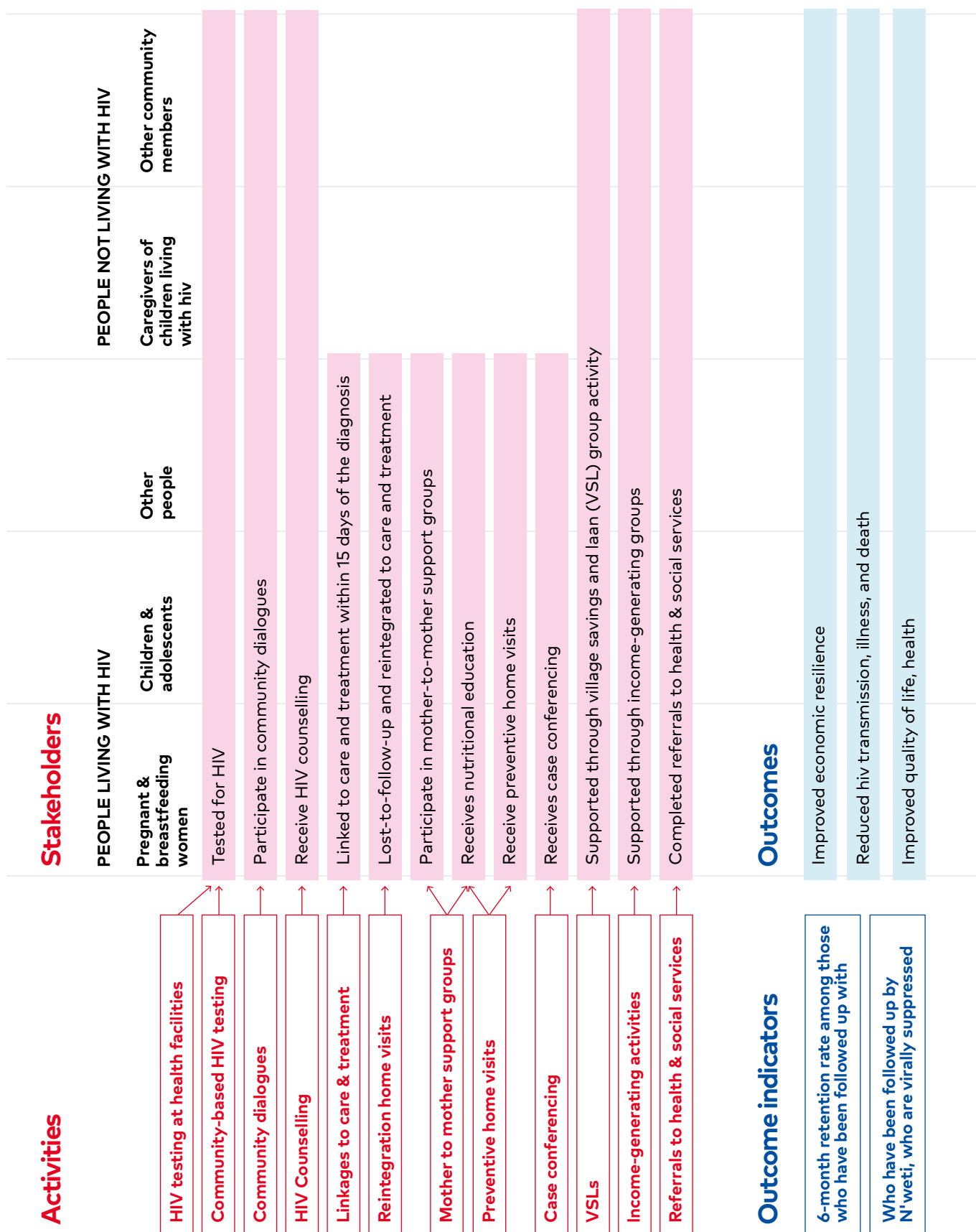
6. Recommendations for Future Data Collection

This SROI analysis is designed to reflect what can reasonably be evidenced. To strengthen future SROI analyses and enable a more complete valuation of programme impact, the following recommendations are proposed:

- 1. Track outcome durability beyond one year.** Following cohorts over multiple years—particularly for viral suppression and VSL participation—would significantly strengthen future valuation models. Evidence on the persistence of health and economic outcomes would allow multi-year benefit durations to be applied with greater confidence and reduce reliance on conservative one-year assumptions. Given the sensitivity of results to duration, this represents the single most important methodological enhancement.
- 2. Strengthen longitudinal economic data collection.** Collecting individual-level data on savings balances, income sources, and household financial security over time would enable more robust modelling of economic outcomes, including the duration and sustainability of financial resilience gains and, where appropriate, income growth. This would reduce reliance on GDP-based proxies and allow valuation to reflect actual participant-level change.
- 3. Enhance linkage between health and economic outcome.** Improved linkage between health and economic data systems would help explore how economic resilience influences treatment adherence, retention, and viral suppression. Strengthening causal evidence across outcome pathways would allow future SROI analyses to model reinforcing effects between health and livelihoods more confidently.
- 4. Strengthen participant-reported economic wellbeing data.** Collecting a small number of participant-reported indicators—such as perceived ability to meet daily needs or cope with financial shocks—would allow future evaluations to capture economic change more directly and in a participant-centred way. This would support more nuanced valuation without significantly increasing reporting burden.
- 5. Introduce routine wellbeing measurement.** Incorporating validated self-reported wellbeing or quality-of-life measures (e.g., WHO-5 or EQ-5D) would enable future analyses to monetise improvements in mental wellbeing, confidence, and daily functioning that are widely recognised benefits of sustained HIV care and economic strengthening interventions.

Appendices

Appendix A. Logic Model: Kusingata Programme



Endnotes

- 1 37.5% is calculated based on the amount remaining after deadweight (100% - 25%), multiplied by attribution (50%), giving a total of 37.5%
- 2 Jeremy Nicholls, Eilis Lawlor, Eva Neitzert, and Tim Goodspeed, *A Guide to Social Return on Investment* (London: The SROI Network, 2012), <https://socialvalueuk.org/resources/a-guide-to-social-return-on-investment/>.
- 3 Attribution reflects shared contribution between the programme, other funders (including FVF), and government ART provision.
- 4 Jeremy Nicholls, Eilis Lawlor, Eva Neitzert, and Tim Goodspeed, *A Guide to Social Return on Investment* (London: The SROI Network, 2012).
- 5 Tom Decroo et al., "Community-Based Antiretroviral Therapy Programs Can Overcome Barriers to Retention of Patients and Decongest Health Services in Sub-Saharan Africa: A Systematic Review," *International Health* 5, no. 3 (2013): 169–179. <https://doi.org/10.1093/inthealth/ih016>.
- 6 GBD 2019 Diseases and Injuries Collaborators, "Global Burden of 369 Diseases and Injuries in 204 Countries and Territories, 1990–2019: A Systematic Analysis for the Global Burden of Disease Study 2019," *The Lancet* 396, no. 10258 (2020): 1204–1222. [https://doi.org/10.1016/S0140-6736\(20\)30925-9](https://doi.org/10.1016/S0140-6736(20)30925-9)
- 7 World Health Organization (WHO), *Mother-to-Child Transmission of HIV (Fact Sheet)*, updated 2023, <https://www.who.int/news-room/fact-sheets/detail/hiv-aids>.
- 8 World Health Organization (WHO), *Consolidated Guidelines on HIV Prevention, Testing, Treatment, Service Delivery and Monitoring: Recommendations for a Public Health Approach* (Geneva: WHO, 2021).
- 9 GBD 2019 Diseases and Injuries Collaborators. "Global Burden of 369 Diseases and Injuries in 204 Countries and Territories, 1990–2019." *The Lancet* 396, no. 10258 (2020): 1204–1222. [https://doi.org/10.1016/S0140-6736\(20\)30925-9](https://doi.org/10.1016/S0140-6736(20)30925-9).
- 10 See Data coverage and cohort selection (viral suppression and retention) for more information on this adjustment.
- 11 Dugdale, C. M., Ufio, O., Giardina, J., Shebl, F., Coskun, E., Pletner, E., Torola, P. R., Cosar, D., Shapiro, R., Kim, M., Mofenson, L., & Ciaranello, A. L. (2025). Estimating the effect of maternal viral load on perinatal and postnatal HIV transmission: a systematic review and meta-analysis. *Lancet* (London, England), 406(10501), 349–357. [https://doi.org/10.1016/S0140-6736\(25\)00765-2](https://doi.org/10.1016/S0140-6736(25)00765-2)
- 12 Kuznik, A., Lamorde, M., Hermans, S., Castelnuovo, B., Auerbach, B., Semeere, A., Sempa, J., Ssenono, M., Ssewankambo, F., & Manabe, Y. C. (2012). Evaluating the cost-effectiveness of combination antiretroviral therapy for the prevention of mother-to-child transmission of HIV in Uganda. *Bulletin of the World Health Organization*, 90(8), 595–603. <https://doi.org/10.2471/BLT.11.095430>
- 13 Retrospective cohort analysis of children on ART in Zambia documenting annual outpatient ART and care costs of about 169–231 USD per child, with costs varying over time on treatment.
- 14 Multi country analysis of the cost of providing comprehensive HIV treatment in PEPFAR supported programmes in Africa, showing approx. 280–520 USD per patient year in provider costs.
- 15 National strategic plan costing for Mozambique and related analyses indicate ART and service input prices consistent with the lower end of African cost ranges, supporting the use of 150–250 USD per patient year as a central estimate for pediatric care.
- 16 Economic evaluations of routine provider initiated testing and counselling and of pediatric HIV service strategies in South Africa report lifetime discounted HIV related costs per pediatric patient of roughly 1,700–4,800 USD, and assume discounted life expectancies in the low 20s (years) for treated children.
- 17 Modelling studies of HIV early infant diagnosis and linkage to care in sub Saharan Africa, which include lifetime costs (ART, clinic visits, lab monitoring, and opportunistic infection management) and typically apply a 3% discount rate over the child's life course.
- 18 Siedner MJ et al., "An impact evaluation of the national prevention of mother to child HIV transmission program and MTCT associated factors in Uganda 2017–2019." *Scientific Reports* 2025.