Cost Considerations and Antiretroviral Therapy

Updated: October 27, 2026
Reviewed: October 27, 2026

Recommendations and Key Considerations
• The complexities of the U.S. health care system may require that the costs for ART, especially out-of-pocket costs for the person with HIV, be one of the considerations in regimen selection, because such expenditures can directly affect affordability, adherence, and treatment outcomes. • Health insurance and prescription drug coverage can directly affect clinical outcomes for people with HIV; changes to coverage can result in lapses in viral suppression and should be anticipated and avoided as best possible. • Providers should routinely assess the costs of ART borne directly by the person with HIV and be prepared to modify the regimen when those costs create a barrier to initiation, adherence, or continuation of therapy. Any cost-driven regimen change must be evaluated against the person's full antiretroviral history, prior virologic responses, documented or suspected drug resistance, risk of adverse effects, and the potency and durability of the proposed alternative regimen. Modifying an ART regimen for cost considerations must never compromise virologic efficacy or long-term treatment outcomes **(AIII).** • Clinicians encountering payer-driven barriers to a clinically indicated regimen should pursue available mechanisms for challenging coverage determinations, including peer-to-peer review, formal appeals processes, and referral to clinic-based pharmacy staff, benefits managers, or other available resources with experience in navigating HIV-specific coverage **(AIII).** • The Ryan White HIV/AIDS Program offers opportunities to access essential HIV medical and support services, including medication assistance, to minimize cost as a barrier to care for people with HIV who have lower incomes. • Both medical and non-medical case management services can be used to identify and address cost-related barriers to ART by linking individuals to private and public funding sources. • Disengagement from care occurs more frequently during transitions in care and coverage (e.g., transitioning from pediatric to adult care; changing employment status; moving from one state to another; being released from incarceration; switching insurance, including to Medicare).
Rating of Recommendations: *A = Strong; B = Moderate; C = Weak* ***Rating of Evidence:*** *I = Data from randomized controlled trials; II = Data from well-designed nonrandomized trials or observational cohort studies with long-term clinical outcomes; III = Expert opinion*

Key: ART = antiretroviral therapy

Introduction

The clinical benefits, public health impact, and cost-effectiveness of HIV treatment are well established,[1-6] and increased uptake and utilization of antiretroviral therapy (ART) is one of the four pillars of the *Ending the HIV Epidemic in the U.S.* initiative.[7,8] However, ART is costly. A 2023 study estimated that the net Medicaid spending from 2007 through 2019 was $25 billion for 17 million 30-day supplies of antiretroviral (ARV) drugs.[9] Estimated annual spending—inclusive of statutorily required manufacturer rebates to offset federal and state costs of most outpatient prescription drugs dispensed to Medicaid beneficiaries—increased 178%, from $1.1 billion to $3.0 billion, during this 12-year period. According to a study of risk-adjusted 2016 Medicare claims, total spending for Medicare beneficiaries with HIV receiving ART was 221% greater than for beneficiaries without HIV, largely driven by ARV medication expenses.[10] Since the initial inclusion of an ARV cost table in these guidelines in 2012, the cost of brand-name, first-line ARV regimens has increased by more than 30% from 2012 to 2018,[11] which is 3.5 times the rate of inflation for that same time period.

This section provides guidance on cost considerations related to HIV clinical care. Ideally, ART costs do not influence regimen selection. However, the complexities of the U.S. health care system, including those related to out-of-pocket costs to people with HIV, may necessitate their consideration in regimen selection, because expenditures may directly or indirectly affect adherence and virologic outcomes. Additionally, health insurance and prescription drug coverage determinations, based in part on ART costs, can directly affect clinical outcomes for people with HIV; the clinical impact of changes to insurance coverage is also discussed in this section. Overall costs to the health care system, insurers, and society are also important, especially given the increasing number of people with HIV, rising drug costs, and increasing multimorbidity among people aging with HIV.

Providers should make every effort to understand cost considerations that may limit HIV care and the support services available to mitigate cost as a barrier to effective HIV treatment. The 2025 federal budget reconciliation law enacted several changes with direct implications for health coverage among people with HIV, including new Medicaid work requirements, mandatory semi-annual eligibility redeterminations, and cost-sharing requirements for Medicaid expansion enrollees; restrictions on Medicaid, Child Health Insurance Program, and Affordable Care Act (ACA) Marketplace eligibility for certain categories of lawfully present immigrants; and modifications to ACA Marketplace plan structures.[12-14] Enhanced ACA Marketplace premium tax credits, in effect since 2021, expired at the end of 2025, increasing premium costs for marketplace enrollees who had qualified for enhanced subsidies.[15,16] These pressures, compounded by rising ARV drug costs, increased enrollment, and decreased 340B rebate revenues, have prompted a number of AIDS Drug Assistance Programs (ADAPs) to implement cost-containment measures, including reductions in financial eligibility thresholds, enrollment caps, waiting lists, formulary restrictions, and changes to insurance premium assistance programs.[17] Providers should assess the current coverage status for people with HIV at each visit and be familiar with available assistance programs, as coverage transitions can disrupt continuity of ART and related care.

Health Care Coverage to Maximize Access to Antiretroviral Therapy

Health care access in the United States can vary, depending on factors such as location and income. Although the ACA has substantially improved access to HIV clinical services in many regions of the United States since 2010, an estimated 35% of people with HIV in the United States live in the 10 states that had not expanded Medicaid under the ACA as of March 2026, including Florida, Georgia, and Texas.[18,19]

The ACA and its Medicaid expansion have greatly improved insurance coverage among people with HIV.[20] Before the ACA, many individuals with HIV were denied insurance due to pre-existing condition exclusions and high costs.[21,22] Soon after implementation, the ACA and Medicaid expansion were associated with increased HIV testing and diagnoses, ART initiation and viral suppression, fewer hospitalizations among uninsured people with HIV, and improved awareness of HIV status.[23-26]

A retrospective analysis of North American AIDS Cohort Collaboration on Research and Design (or NA-ACCORD) data examined the associations between state Medicaid expansion associated with the ACA and HIV outcomes in the United States.[27] The study found that Medicaid expansion was associated with higher CD4 T lymphocyte (CD4) cell counts at enrollment; however, no significant benefit on viral suppression or other HIV care outcomes was observed. The authors suggest the null effect on downstream HIV measures may be due to the Ryan White HIV/AIDS Program (RWHAP), the highly cost-effective federal safety net program, potentially concealing HIV outcome deficits that might otherwise be apparent in states foregoing Medicaid expansion.[28] At the population level, Medicaid expansion could have a greater effect on reducing HIV incidence by increasing diagnoses and improving linkage to care.[29]

In a prospective study of 101 people with HIV who enrolled in expanded Medicaid in Nebraska in 2020 and 2021, viral suppression significantly increased from 58.4% to 77.2%, with concurrent improvements in access to care and reductions in cost-related ART dose-skipping and rationing.[30] Together, these studies underscore the impact of Medicaid expansion for HIV care access, even as the evidence on downstream care continuum outcomes remains mixed.

Changes or lapses in health insurance, commonly referred to as "coverage churn," are common and can result in interruptions in clinical care and viral suppression.[31] Among people with HIV, coverage churn has been associated with sharp increases in transmissible viremia and delayed return to viral suppression upon re-engagement in care.[32] Federal policy changes anticipated to take effect in 2026 and 2027, described above, could increase the frequency and scope of coverage disruptions for people with HIV.

Frequent recertification requirements for ADAPs or Medicaid can lead to lapses in ART use.[33-36] Providers should be aware of the certification needs for the states in which they provide care. Both ADAPs and Medicaid are administered at the state level; therefore, eligibility criteria and medication formularies differ from state to state. When people with HIV receiving Medicaid or ADAP ARV drug coverage move from one state to another, advanced planning is required to ensure uninterrupted access to ART. For example, specific ARV drugs covered by Medicaid may not be covered by the state ADAP (e.g., long-acting cabotegravir/rilpivirine [LA CAB/RPV]), potentially resulting in the need for regimen changes if a change from Medicaid to an ADAP is required.

Interruptions in health insurance and prescription drug coverage access are also common for people with HIV involved with the criminal justice system. While incarcerated, some people with HIV may be disenrolled from their health care insurance and prescription drug coverage. However, in 2023, the Centers for Medicare & Medicaid Services (CMS) released guidance for states when applying for a partial waiver of this policy, enabling coverage for services provided 30 to 90 days before release.[37] With approval of this waiver, states are expected to suspend (not terminate) Medicaid coverage during incarceration and must collaborate with correctional facilities to assist incarcerated individuals who are not currently enrolled in Medicaid with submitting applications during incarceration using presumptive eligibility. Minimum benefits expected by CMS in state waiver proposals include case management services for pre- and post-release (including linkage to outpatient HIV care), medication-assisted therapy for substance use disorders, and at least a 30-day supply of medications at release. Additionally, although federal RWHAP and ADAP funds cannot cover care and treatment for individuals in state or federal prison systems, they can provide short-term, transitional support to people with HIV in local correctional facilities (e.g., city or county jails).[38]

Utilization management strategies—including prior authorization requirements, step therapy protocols, and formulary restrictions—are applied by payers across coverage types, including commercial insurers and state Medicaid programs.[39,40] Medicare Part D plans and Medicare Advantage Plans offering Part D benefits, however, operate under a distinct and more protective regulatory framework: ARV medications carry protected drug class status, which requires coverage of all or substantially all approved agents, explicitly prohibits prior authorization and step therapy requirements, and specifies that any additional coverage restrictions must be consistent with these guidelines.[41]

Although utilization management mechanisms are commonly used to manage drug expenditures at the population level, data on their application to ART are limited. Given the risks of viral rebound, drug resistance, and increased HIV transmission associated with treatment interruptions or delays in initiating preferred regimens, these strategies should be applied cautiously. Clinicians encountering payer-driven barriers to a clinically indicated regimen should pursue available mechanisms for challenging coverage determinations, including peer-to-peer review, formal appeals processes, and

referral to clinic-based pharmacy staff, benefits counselors, or other available resources with experience navigating HIV-specific drug coverage **(AIII).**[42]

Cost Sharing in the United States

Prescription drug pricing in the United States involves complex, largely confidential systems of discounts, rebates, and reimbursement rates that vary by state, purchaser, payer type, and the availability of generic competitors (see Table 21 below). As a result, providers may find it difficult to navigate cost-containment practices, such as formulary restrictions; prior authorization requirements; and cost-sharing arrangements, including copayments (a fixed dollar amount per prescription), coinsurance (a fixed percentage of the prescription cost), and deductibles.

Out-of-pocket costs for people with HIV can be prohibitive, creating a barrier to initiating, switching, and continuing ART. Cost sharing results in higher rates of people not initiating ART, prescription abandonment at the pharmacy, decreased adherence, and more frequent drug discontinuation. In turn, out-of-pocket costs may indirectly lead to worse health outcomes and an increased use of the medical system, especially among people with chronic diseases.[43-48] In 2022, the Centers for Disease Control and Prevention (CDC) Medication Monitoring Project (MMP) reported that less than 5% of people with HIV previously taking ART had stopped; however, among people in the MMP who were no longer taking ART, 34% reported that money or insurance problems were contributors to stopping ART.[49]

Conversely, reducing out-of-pocket costs (e.g., through RWHAP or ADAP cost-sharing assistance, manufacturer copayment-assistance programs, or by prescribing generic drugs instead of more costly brand-name products) has been associated with improved adherence.[50] Given the clear association between out-of-pocket costs and the ability to pay for and adhere to medications, clinicians should minimize out-of-pocket drug-related expenses for people with HIV whenever possible. However, many of the cost-sharing arrangements that determine out-of-pocket costs are not transparent to clinicians or people with HIV at the time when decisions on ART are made. Asking people with HIV about their copays and working with case management specialists can help to identify and overcome this structural barrier to clinical care.

Medicaid maximum allowable copayments are statutorily capped at $4 for preferred drugs; in some states, maximum allowable copayments can increase to up to $8 for certain non-preferred drugs for beneficiaries with income <150% of the federal poverty level. For commercial insurers, cost sharing generally is subject to maximum payment rules under the ACA, which increase annually. Manufacturer cost-sharing assistance programs are available for most brand-name ARV products but may be restricted by pharmacy and by state. Manufacturer copay assistance also may be subject to copay accumulator programs implemented by insurers' pharmacy benefit managers, whereby manufacturer payments do not count toward a person's deductible or out-of-pocket maximum.

ADAPs make ARV and other prescription drugs accessible to people with HIV who are underinsured and have limited financial resources, particularly during lapses in insurance coverage.[51,52] Furthermore, many ADAPs provide premium and/or cost-sharing assistance to eligible clients covered by Medicaid, commercial insurance plans, employer-sponsored insurance plans, or Medicare.[20] Nationally, ADAP utilization increased from 14% of all people with HIV in 2008 to 22% in 2021, with persistent disparities in coverage by race and sex.[53]

Medicare Beneficiaries With HIV

ARV cost considerations associated with Medicare coverage are increasingly important as more people with HIV age into Medicare. According to CDC HIV prevalence data, 15% of all people with

diagnosed HIV in the United States were aged 65 or older in 2022 (compared with 10% in 2019); an additional 27% were aged 55 to 64, with the vast majority expected to age into Medicare over the next 10 years.[54] Enrollment in Medicare can change out-of-pocket costs, which can cause unexpected changes to ART affordability and, ultimately, adherence.

Medicare Part D prescription drug cost sharing includes deductibles and copayments or coinsurance, including out-of-pocket payments of up to 25%. However, beginning in 2025, the Inflation Reduction Act (IRA) capped annual out-of-pocket drug spending in Medicare Part D at $2,000 ($2,100 in 2026; $2,400 in 2027)—a provision projected to benefit people with HIV more than beneficiaries managing most other chronic conditions, with estimated average savings of $3,181 annually and a 69% reduction in out-of-pocket spending.[55-57]

Medicare Part B cost sharing is not subject to out-of-pocket caps. Where provider-administered drugs—such as LA CAB/RPV, ibalizumab-uiyk (IBA) infusions, or subcutaneously (SQ) administered lenacapavir (LEN)—are covered under Medicare Part B, beneficiary cost sharing can be up to 20% of all medication costs.[58]

People with HIV who are low income and enrolled in Medicare may qualify for subsidies to defray Part D cost-sharing payments or the Qualified Medicare Beneficiary program to defray Part B cost-sharing payments. Medicare Advantage and Part D plans are now required to offer beneficiaries an option to enroll in a Medicare Prescription Payment Plan[59] authorized under the IRA, which will allow beneficiaries to pay cost sharing associated with high-cost prescription drugs in capped monthly payments instead of a single pharmacy payment. Manufacturer copay assistance programs may not be applied toward Medicare plan cost sharing, but assistance from state/territorial ADAPs, other State Pharmaceutical Assistance Programs, and independent foundations (e.g., Patient Access Network Foundation, Patient Advocate Foundation) may provide cost-sharing support if financial eligibility criteria are met.

In addition to its Medicare Part D cost-sharing provisions intended to lower out-of-pocket costs for beneficiaries, the IRA also requires the Secretary of the U.S. Department of Health and Human Services to negotiate prices with manufacturers for certain drugs with the highest total Part D and Part B spending. Ten Part D drugs were selected for price negotiation in 2026 (2026 pricing was finalized in 2024), with another 15 Part D drugs selected for 2027, 15 Part D and Part B drugs for 2028, and 20 Part D and Part B drugs selected for 2029 and thereafter. The selected drugs will come from the 50 with the highest total Medicare Part D spending and the 50 with the highest total Medicare Part B spending. Although ARV drugs did not qualify for negotiated pricing during the 2026 and 2027 cycles, Biktarvy (bictegravir/tenofovir alafenamide/emtricitabine) has been selected for negotiated pricing starting in 2028.[60]

Generic Antiretrovirals and Multi-tablet Regimens

In 2024, savings to the U.S. health care system generated from the use of generic drugs and biosimilar products totaled $467 billion, including $142 billion and $62.1 billion in savings to Medicare and Medicaid, respectively.[61] Total generic and biosimilar savings over the past 10 years are estimated at $3.4 trillion.

With substantial improvements in the long-term safety and effectiveness of contemporary ART, a number of regimens and regimen components recommended by the Panel on Antiretroviral Guidelines for Adults and Adolescents (the Panel) remain listed beyond their patent protection date and are or will be available as lower-cost generic options (see Initial Combination Antiretroviral Regimens for People With HIV). Keen interest exists in assessing the economic value of using newer, more expensive drugs compared with older, less expensive generic drugs that have

established clinical safety and efficacy, such as generic tenofovir disoproxil fumarate (TDF), which has been available since 2018.

A nationwide cross-sectional analysis of 2019 Medicare Part D formulary and pricing data investigated the cost-effectiveness of generic TDF-based regimens versus branded tenofovir alafenamide (TAF)–based regimens.[62] The study demonstrated that the similar efficacy—but slightly improved toxicity profile—of the TAF-based regimens would justify no more than a $1,000 higher annual premium for the TAF-based regimens than for generically available TDF-based regimens.

A cost-containment analysis evaluated the use of branded dolutegravir (DTG) plus generic lamivudine (3TC) as a two-pill regimen compared with a branded single-tablet regimen (STR).[63] Model findings supported that if 50% of people with newly diagnosed HIV initiated a two-pill regimen consisting of branded DTG plus generic 3TC, the cost savings would reach $550 million to $800 million over 5 years; similarly, if 25% of people with sustained viral suppression switched to branded DTG plus generic 3TC maintenance therapy, the cost savings would exceed $3 billion in 5 years.[63]

Because all commercially available STRs listed among the *Recommended Initial Regimens for Most People With HIV* and *Initial Antiretroviral Regimens for Certain Clinical Scenarios* are branded products, including STRs that contain ARV components that are no longer patent protected, use of generics in the United States may necessitate modest increases in pill burden, but without changes in drug frequency.

However, to the extent that pill burden, rather than drug frequency, results in reduced adherence, generic ART could lead to decreased costs but at the potential expense of worsening virologic suppression rates and poorer clinical outcomes.[45,46] An additional benefit of STRs is that they eliminate the risk that one drug in the regimen will be temporarily or permanently discontinued because of prescribing error, unsynchronized refill schedules, or prohibitive out-of-pocket costs. Data to support or refute the superiority of once-daily STRs versus once-daily multi-tablet regimens remain limited, particularly based on virologic outcomes and especially following viral suppression. One large observational cohort study demonstrated a small but statistically significant virologic efficacy benefit associated with STRs.[63] In this study, the time to treatment discontinuation was shorter for non-STRs than for once-daily STR regimens; however, this difference disappeared when modifications for regimen simplification were included in the analysis. On the other hand, observational data from Spain showed that coformulated DTG/ABC/3TC resulted in similar viral suppression compared with DTG plus ABC/3TC, both when used as an initial ARV regimen and when people with viral suppression on the STR were switched to the two-pill formulation as a cost-saving strategy.[64]

A 2025 budget impact analysis of Washington State Medicaid's elimination of prior authorization requirements for all ARV drugs illustrates the complex tradeoffs inherent in formulary management policy. Using actual net drug costs, including rebates, the analysis projected that the removal of prior authorizations favoring generic TDF-based multi-tablet regimens would increase Medicaid ARV expenditures by an estimated $109.9 million to $157.7 million over 5 years, driven primarily by a shift toward higher-cost branded single-tablet regimens.[65]

Importantly, when the costs of brand-name drug products and generic ARV drugs are compared, savings associated with generic ARV drugs may vary when branded drugs are subject to discounts or rebates across public and private payer systems. Although generic drug products may be associated with societal cost savings and, specifically, savings for public payers, commercial insurers, and people with HIV with significant out-of-pocket pharmacy expenses, manufacturer copay assistance is not generally available to commercially insured individuals. In cases where manufacturer copay assistance may be available for a brand-name ARV product but not for an

equivalent generic ARV product, the generic drug prescription paradoxically may result in higher out-of-pocket costs.

Antiretroviral Therapy Regimen Selection and Costs Borne by the Person With HIV

When limited health care coverage or out-of-pocket costs restrict access to a specific ART regimen, providers should work with people with HIV to identify a clinically appropriate and affordable alternative. Any decision to select or modify an ART regimen based on cost should be evaluated against the person's full ARV history, prior virologic responses, documented or suspected drug resistance, risk of adverse effects, and the potency and durability of the proposed alternative; cost considerations must never compromise virologic efficacy or long-term treatment outcomes **(AIII).**

For people who are uninsured or face significant cost sharing, "hybrid" regimens (e.g., a branded integrase strand transfer inhibitor [INSTI] or boosted protease inhibitor [PI] paired with a generic nucleoside reverse transcriptase inhibitor [NRTI] backbone) or fully generic multi-tablet regimens can substantially reduce monthly costs while remaining within the scope of a Guideline-recommended regimen. Pricing for generic components is typically lowest at direct-to-consumer pharmacies or clinic in-house pharmacies, particularly those participating in the 340B Drug Pricing Program. Sending a proposed regimen to the patient's pharmacy before finalizing it is the most reliable way to determine actual out-of-pocket cost.

Table 22a provides benchmark pricing across brand-specific, hybrid, and fully generic initial regimen options. People on ART who have no history of drug resistance or viral failure but require a change to their ART regimen can likely switch to a regimen recommended for initial ART (see Table 22a). Additionally, several regimens not used as initial therapy have been studied extensively as switch therapy; costs of these regimens are in Table 22b. Table 22c provides pricing for all individual and coformulated ARV medications, including generic medications that are not components of currently recommended regimens but retain demonstrated antiviral efficacy and may offer acceptable tolerability profiles. Prescribing regimen components that are not currently recommended may warrant consideration when cost is the predominant constraint on regimen selection or continuation and when their use can be supported by the person's treatment history and resistance profile.

Long-Acting Injectable Antiretroviral Therapy

Cabotegravir/rilpivirine (CAB/RPV), IBA, and LEN are parenteral ARV drugs with unique pharmacokinetic characteristics that allow for long-acting (LA) administration via intramuscular (IM) injection, intravenous (IV) infusion, and SQ injection, respectively. IBA and LEN are approved for use among people with HIV who are highly treatment experienced, typically in combination with an optimized background regimen that includes at least one daily oral ARV drug product and are associated with unique cost considerations. Conversely, monthly or bimonthly LA CAB/RPV injections can be prescribed and administered as a complete regimen replacement for daily oral ARV regimens.

Wholesale Acquisition Cost (WAC) prices for the LA CAB/RPV formulations are comparable to those of commonly prescribed oral regimens on an annual basis. However, LA HIV treatment options requiring administration by a licensed medical provider may be associated with costs not typically associated with oral ART, including clinic visit and administration fees, medical benefit determinations and prior authorization requirements, appointment scheduling and follow-up to ensure adherence, upfront medication purchasing costs incurred by clinics, and inadequate "buy-and-bill" insurance reimbursements.

Cost-effectiveness modeling indicates that long-acting ART may be particularly advantageous for people struggling with adherence to daily oral regimens.[66-68] Studies have demonstrated that long-acting ART can achieve similar or better clinical outcomes than oral ART, particularly when adherence is factored into the equation. In cost terms, LA CAB/RPV may lead to lifetime savings, given lower health care expenditures associated with improved viral suppression and reduced risk of HIV transmission.

Costs and Cost-Effectiveness of Antiretroviral Regimens for Highly Treatment-Experienced People With Multidrug-Resistant HIV

For people with multidrug-resistant (MDR) HIV, an ARV regimen that includes IV IBA, SQ LEN, or oral fostemsavir can be effective in achieving viral suppression, though costly. Two cost-effectiveness analyses using independent simulation models have demonstrated that IBA-containing ARV regimens would substantially improve survival for people with MDR HIV, but at a high cost per quality-adjusted life year, given the high cost of IBA. However, the overall budget impact of such regimens would be relatively small, given the limited number of people for whom IBA would be necessary.[69,70]

340B Drug Pricing Program, Prescription Drug Affordability, and Program Savings for People With HIV

Created by Congress in 1992, the 340B Drug Discount Program requires pharmaceutical manufacturers to sell drugs at a discount to certain hospitals and federally funded clinics providing safety net care, including RWHAP providers and state/territorial ADAPs. 340B discounts help to ensure the affordability of outpatient prescription drugs for people with HIV who are uninsured and underinsured and to retain any revenue associated with discounted sales. This revenue, or program savings, is generated when 340B-covered entities are able to purchase discounted drugs but are reimbursed by third-party payers at usual and customary rates that do not account for discounted purchases. Although potentially incentivizing providers to prescribe higher-cost brand-name drugs that yield substantially greater revenue than generic alternatives, 340B savings can be used to "stretch scarce federal resources as far as possible, reaching more eligible patients and providing more comprehensive services."[71]

By purchasing ARV drugs and other essential medicines at significantly reduced prices, covered entities can reinvest savings into essential HIV care and support services, including case management, behavioral health care, offsetting uncompensated care, transportation, adherence support, and outreach efforts. These services can help improve engagement in HIV care, medication adherence, and viral suppression rates.[20]

Costs and Cost-Effectiveness of Routine Laboratory Services for People With HIV on Antiretroviral Therapy

Several studies have examined the value of laboratory services in HIV care. One analysis suggested that there may be no clinical benefit to continuing CD4 monitoring in people with suppressed viral loads and CD4 counts >200 cells/mm^3 after 48 weeks of therapy.[72] In the United States, one modeling study found that reducing biannual CD4 monitoring to annual monitoring could save approximately $10 million per year.[73] Another study reviewed the records of 429 hospitalizations for 274 people with HIV during a 6-month period. The inpatient chart review demonstrated that 45% of ordered laboratory tests were not indicated. During this 6-month period at this single site, the estimated cost of excess and inappropriate laboratory testing totaled $14,000 to $92,000.[74]

Cost-effectiveness analyses from 2001 and 2005 demonstrated the value of genotypic resistance testing in people who are ART-experienced and ART-naive and supported the Panel's recommendation to perform resistance testing before ART initiation and at the time of virologic failure.[75,76] More recent cost-effectiveness analyses have revisited the value of baseline, pre-treatment genotype testing in the setting of INSTI plus two-NRTI regimens. One modeling study suggested that INSTI-specific genotype testing before initiation of a DTG plus two-NRTI regimen is not cost-effective and may lead to underutilization of INSTIs; the results highlighted that some people with minor INSTI resistance mutations would still become virologically suppressed on a DTG-based regimen.[77] A second modeling study found that standard (NRTI, non-nucleoside reverse transcriptase inhibitor, PI) genotype testing before ART initiation also is not cost-effective because it may have little impact on outcomes, given the use of an INSTI plus two NRTIs in first-line treatment.[78] Both modeling studies assessed the use of genotype testing only for decision-making for initial ART and presumed that genotype testing would be available for use at the time of first-line failure. The results of these modeling studies suggest that additional clinical research is needed to define the role of genotypic resistance testing before initiation of an INSTI plus two-NRTI regimen. Importantly, these modeling data do not apply to the initiation of two-drug ARV regimens (e.g., DTG plus 3TC) or to people who have received oral (TDF or TAF) plus (3TC or FTC) or IM cabotegravir (CAB) as pre-exposure prophylaxis (PrEP), which are being prescribed increasingly in clinical practice. It should be noted that the Panel continues to recommend baseline testing for clinically relevant protease and reverse transcriptase mutations for most people, with additional genotypic resistance testing for integrase mutations for individuals with a history of CAB use for PrEP or an INSTI-based regimen for post-exposure prophylaxis (see Drug-Resistance Testing).

Costs and Cost-Effectiveness of Comprehensive HIV Care

Comprehensive person-centered HIV care offers substantial clinical benefits.[79] Such programs include the integration of social service needs and services for mental health, substance use disorders, sexual health, and age-associated multimorbidity (see Substance Use Disorders and HIV, Adherence to the Continuum of Care, and HIV and the Older Person). Integrated services can improve engagement in care and virologic suppression among people with HIV, but they require investment and resources. Several cost-effectiveness analyses have demonstrated that integrated care programs can offer excellent value, especially if delivered to people at increased risk of disengagement in care.[80-82]

RWHAP provides a critical source of outpatient HIV clinical care for people with HIV who have low incomes and remain uninsured or underinsured under the ACA or who require wraparound support.[38] A recent cost-effectiveness analysis underscored the value of this safety net program and projected its clinical and cost impact over 50 years. Given higher rates of virologic suppression among people with HIV attending RWHAP clinics (compared with estimated virologic suppression in the absence of such supports), the analysis projects fewer HIV incident infections and longer life expectancy and demonstrates the cost-effectiveness of RWHAP.[28] RWHAP funds can be used to provide eligible individuals with services related to the delivery of HIV care, the treatment of related conditions, and support, as well as to address identified barriers to care. However, RWHAP funds cannot be used for inpatient care and services.[83]

A 2025 simulation study using a validated compartmental HIV transmission model calibrated to data from 31 U.S. cities provides additional evidence of RWHAP's public health value and cost implications. The study projected that eliminating RWHAP services could result in an estimated 75,436 additional HIV infections (95% credible interval: 19,251 to 134,175) through 2030—a 49% increase over projected baseline incidence. RWHAP interruptions of 18 and 42 months were projected to yield 19% and 38% more people with HIV, respectively, with substantial variation across cities (ranging from a 9% increase in Riverside, California, to a 110% increase in Baltimore, Maryland).[84] Given the substantial lifetime treatment costs associated with HIV, these projections

highlight the fiscal as well as clinical value of maintaining comprehensive, uninterrupted HIV care through programs such as RWHAP.

Comprehensive HIV care and treatment often requires navigating a complex, dynamic patchwork of service delivery and both payer and financing mechanisms. Provider awareness of this patchwork, including the array of services available to people with HIV eligible for RWHAP, is therefore essential to maximizing clinical outcomes.

Conclusion

Ideally, costs should not drive clinical care, yet they are a factor in contemporary health care. Because regimen costs may affect people's ability to afford and adhere to therapy, understanding ART-related costs in the United States is increasingly important. Providers play a key role in ensuring optimal care while working to both (1) minimize costs for ARV drugs and avoid or minimize unnecessary laboratory monitoring and (2) retain excellent clinical outcomes in an environment of cost-containment strategies, including formulary restrictions, utilization management (e.g., prior authorization), and cost sharing. Providers should, therefore, remain informed of current insurance and payment structures, ART costs (see Tables 22a, 22b, and 22c below for estimates of average drug prices), out-of-pocket expenditure requirements, and available generic ARV options. Providers should work with people with HIV and pharmacists, social workers, case managers, financial service providers, and peer navigators to understand the medication benefits and any potential financial hurdles to prescription fulfillment and full adherence. This information will help providers identify treatment options that are safe, effective, and affordable. Engaging people with HIV in discussions about cost constraints during regimen selection will likely facilitate adherence. Additionally, providers should familiarize themselves with ARV affordability resources (such as ADAPs and pharmaceutical company assistance programs for people who qualify) and refer them to such assistance if needed. Similarly, providers should help people with HIV to find comprehensive clinical care coverage when available and consider opportunities to integrate care when feasible.

Table 21. Insurance and Health Program Prescription Drug Pricing and Access

Insurance/Health Program	Prescription Drug Pricing and Access
Medicaid	Drug manufacturers must participate in the MDRP for their drugs to be covered by Medicaid and Medicare Part B. Manufacturers are required to pay Medicaid programs a rebate of at least 23.1% of the AMP for most brand-name drugs (13% for generics) sold to retail pharmacies or outpatient care providers (notably infused, injected, implanted, inhaled, or instilled drugs). Manufacturers pay additional rebates if this confidential AMP increases faster than the CPI-U rate of inflation. Additionally, many states negotiate with manufacturers for supplemental rebates. States are permitted to require "nominal" cost sharing for medical and pharmacy benefits for some beneficiaries, although many elect not to do so. States can obtain a waiver to allow them to apply higher cost sharing.
Medicare	ARV drugs are one of six "protected drug classes" under Medicare Part D. Part D plans must provide access to all, or substantially all, FDA-approved ARV drugs. Part D plan sponsors, or PBMs on their behalf, negotiate rebates on outpatient drugs with manufacturers; the extent of rebating is unclear. Most physician-administered drugs and biologics are covered under Medicare Part B at a set cost: ASP plus 6%. This pricing mechanism controls spending by narrowing the spread between what is actually paid for the drug and what is actually billed to Medicare. Premiums and cost-sharing payments may be significant for both services and prescription drugs, though caps on out-of-pocket spending for drugs covered by Medicare Part D went into effect in 2025; Part A (hospital care) and Part B place no cap on out-of-pocket spending. Some subsidies and supplemental coverage are offered for low-income beneficiaries. Manufacturer copay assistance programs cannot be applied to Part B or Part D cost sharing; cost-sharing support is available from ADAPs, foundations, and other sources and is based on financial eligibility criteria.
Commercial Insurance	Private insurance plans, or PBMs on their behalf, negotiate rebates on inpatient and outpatient drugs with manufacturers; the extent of rebating is unclear. Formulary restrictions and utilization management (prior authorization, step therapy, higher cost sharing) involving drugs and biologics covered under plans' pharmacy benefit or medical benefit (e.g., infused or injected ARV drugs) are possible cost-containment measures. Cost sharing can be highly variable. Manufacturer copay assistance programs can be applied in most cases but may not count toward annual ACA cost-sharing limits; cost-sharing support is also available from ADAPs, foundations, and other sources and is based on financial eligibility criteria.

Table 21. Insurance and Health Program Prescription Drug Pricing and Access

Insurance/Health Program	Prescription Drug Pricing and Access
ADAPs	Significant discounting on most ARV drugs negotiated by the ADAP Crisis Task Force is allowed under the 340B Drug Pricing Program. There is usually no cost sharing for ADAP clients who are uninsured. ADAP can assist with commercial or public insurance out-of-pocket costs.
Veterans Affairs	The FCP is the maximum price manufacturers may charge the four largest federal purchasers of pharmaceuticals (the "Big Four"): the U.S. Department of Veterans Affairs, U.S. Department of Defense, U.S. Public Health Service (including the Indian Health Service), and U.S. Coast Guard. The FCP of a drug includes a 24% discount on a drug's average price paid by nonfederal purchasers. Additional discounts may be applied if nonfederal purchase prices increase faster than the CPI-U inflation rate. Big Four prices may be 40% to 50% below list prices. Veterans Affairs may negotiate further price reductions. Prescription drug cost sharing is generally nominal; medications are not withheld from those who cannot afford cost-sharing expenses.
Community Health Centers	Many community health centers are enrolled in the 340B Drug Pricing Program, which allows discounted drug purchasing using the MDRP formula. Discounts start at 23.1% off AMP, with additional discounts if the AMP increases faster than the CPI-U rate of inflation. Cost sharing in community health centers is first driven by payer source. For clients who are uninsured, cost sharing, if required, is typically based on a sliding fee scale.
Jails and Prisons	Under the U.S. Constitution, correctional facilities have a legal obligation to provide necessary medical care, including prescription drugs, to incarcerated individuals.[a] Jails and prisons generally do not have access to discounted drugs available to government programs, such as Medicaid or "Big Four" purchasers (see Veterans Affairs above), but may benefit from centralized municipal or state purchasing mechanisms. Jails and prisons also may be able to purchase discounted ARV drugs and other medications under the 340B Drug Pricing Program, either as a recipient of certain federal funds associated with STI, HIV, and viral hepatitis prevention, or in partnership with other 340B-covered entities contracted to provide health care services to jailed or incarcerated individuals (e.g., disproportionate share hospital programs, community health centers). Since 2023, states are expected to suspend (not terminate) Medicaid coverage during incarceration and must collaborate with correctional facilities to assist incarcerated individuals who are not currently enrolled in Medicaid with submitting applications during incarceration using presumptive eligibility. Minimum benefits expected by CMS in state waiver proposals include case management services for pre- and post-release (including linkage to outpatient HIV care), medication-assisted therapy for substance use disorders, and at least a 30-day supply of medications at release.

Table 21. Insurance and Health Program Prescription Drug Pricing and Access

Insurance/Health Program	Prescription Drug Pricing and Access
	RWHAP programs and ADAPs also may provide time-limited HIV care and prescription drug access support for people with HIV in local prisons and jails.
Manufacturer and Charitable Prescription Drug Assistance Programs	Manufacturer PAPs are run by, or in association with, pharmaceutical companies to provide free or low-cost medications to people who meet certain eligibility requirements, including FPL-based income limits. A CAP is operated by manufacturers to provide assistance with cost-sharing requirements (including deductibles, copayments, and coinsurance) associated with prescription drug fills/refills for individuals with private health insurance. Pharmaceutical company CAPs cannot be used by individuals covered by Medicaid, Medicare, or other state and federal programs. Charitable third-party assistance programs, such as Patient Advocate Foundation Co-pay Relief, provide cost-sharing assistance to people who meet financial eligibility requirements. NASTAD maintains a number of PAP and CAP resources for use in clinical practice.

[a] *Estelle v. Gamble*[85]

Key: ACA = Affordable Care Act; ADAP = AIDS Drug Assistance Program; AMP = average manufacturer price; ARV = antiretroviral; ASP = average sales price; CAP = cost-sharing assistance program; CMS = Centers for Medicare & Medicaid Services; CPI-U = consumer price index-urban; FCP = federal ceiling price; FPL = federal poverty level; MDRP= Medicaid Drug Rebate Program; NASTAD = National Alliance of State & Territorial AIDS Directors; PAP = patient assistance program; PBM = pharmacy benefits manager; RWHAP = Ryan White HIV/AIDS Program; STI = sexually transmitted infection

Table 22a. Benchmark Prices for Recommended Initial Antiretroviral Therapy Regimens

Cash-pay estimate applicability: These estimates approximate out-of-pocket cost for individuals paying cash for antiretroviral therapy (ART) in narrowly defined circumstances—those who are uninsured, underinsured, or otherwise ineligible for the Ryan White HIV/AIDS Program, AIDS Drug Assistance Program, or manufacturer patient assistance programs. They do **not** reflect cost-sharing obligations (copayments, coinsurance, deductibles) where primary health coverage applies to these products. Generic-component estimates reflect direct-to-consumer pharmacy pricing (e.g., Cost Plus Drugs); Wholesale Acquisition Cost (WAC) is used as the acquisition-cost surrogate for branded products without National Average Drug Acquisition Cost (NADAC) data. For hybrid regimens, the WAC and AWP columns reflect the branded component(s) only. The generic component(s) are priced via NADAC in the NADAC column. The Estimated Cash-Pay Cost is the sum of branded WAC + generic NADAC.

Note: All prices are approximate monthly costs based on standard dosing quantities. Prices may vary by pharmacy, geographic region, and patient assistance program eligibility.

Regimen	Evidence Rating[a]	Specific Option	Option Type[b]	WAC	AWP	NADAC	Est. Cash-Pay Cost[c]
Table 6a—Recommended Initial Regimens for Most People With HIV							
BIC/TAF/FTC	**AI**	Biktarvy (bictegravir 50 mg/ tenofovir alafenamide 25 mg/ emtricitabine 200 mg)	Brand-Only	$4,216	$5,059	See WAC	$4,216
DTG + TAF/FTC	**AI**	Tivicay (dolutegravir 50 mg) + Descovy (tenofovir alafenamide 25 mg/emtricitabine 200 mg)	Brand-Only	$4,597	$5,517	See WAC	$4,597
DTG + TDF/FTC	**AI**	Tivicay (dolutegravir 50 mg) + Truvada (tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg)	Brand-Only	$2,395 (DTG) + $1,842 (TDF/FTC)	$2,874 (DTG) + $2,211 (TDF/FTC)	See WAC	$4,237
DTG + TDF/FTC	**AI**	Tivicay (dolutegravir 50 mg) + Generic tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg)	Hybrid	$2,395 (DTG)	$2,874 (DTG)	$14 (TDF/FTC)	$2,409
DTG/3TC	**AI**	Dovato (dolutegravir 50 mg/ lamivudine 300 mg)	Brand-Only	$3,250	$3,901	See WAC	$3,250

Table 22a. Benchmark Prices for Recommended Initial Antiretroviral Therapy Regimens

Regimen	Evidence Rating[a]	Specific Option	Option Type[b]	WAC	AWP	NADAC	Est. Cash-Pay Cost[c]
DTG + 3TC	**AI**	Tivicay (dolutegravir 50 mg) + Generic lamivudine 300 mg	Hybrid	$2,395 (DTG)	$2,874 (DTG)	$39 (3TC)	$2,434
Table 6a—For People With History of CAB-LA Use as PrEP (INSTI Genotype Testing Recommended)							
DRV/c/TAF/FTC	**AIII**	Symtuza (darunavir 800 mg/ cobicistat 150 mg/tenofovir alafenamide 10 mg/emtricitabine 200 mg)	Brand-Only	$4,717	$5,660	See WAC	$4,717
DRV/c + TAF/FTC	**AIII**	Prezcobix (darunavir 800 mg/ cobicistat 150 mg) + Descovy (tenofovir alafenamide 25 mg/ emtricitabine 200 mg)	Brand-Only	$4,669	$5,603	See WAC	$4,669
DRV/c + TDF/FTC	**AIII**	Prezcobix (darunavir 800 mg/ cobicistat 150 mg) + Truvada (tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg)	Brand-Only	$2,467 (DRV/c) + $1,842 (TDF/FTC)	$2,960 (DRV/c) + $1,842 (TDF/FTC)	See WAC	$4,309
DRV/c + TDF/FTC	**AIII**	Prezcobix (darunavir 800 mg/ cobicistat 150 mg) + Generic tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg	Hybrid	$2,467 (DRV/c)	$2,960 (DRV/c)	$14 (TDF/FTC)	$2,481
DRV + r + TDF/FTC	**AIII**	Prezista (darunavir 800 mg) + Norvir (ritonavir 100 mg) + Truvada (tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg)	Brand-Only	$2,158 (DRV) + $257 (r) + $1,842 (TDF/FTC)	$2,590 (DRV) + $309 (r) + $2,643 (TDF/FTC)	See WAC	$4,257
DRV + r + TDF/FTC	**AIII**	Generic darunavir 800 mg + Generic ritonavir 100 mg + Generic tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg	Generic	N/A	N/A	$64 (DRV) + $20 (r) + $14 (TDF/FTC)	$98

Table 22a. Benchmark Prices for Recommended Initial Antiretroviral Therapy Regimens

Regimen	Evidence Rating[a]	Specific Option	Option Type[b]	WAC	AWP	NADAC	Est. Cash-Pay Cost[c]
Table 6b—Initial Regimens for Certain Clinical Scenarios							
INSTI Plus Two NRTIs							
DTG/ABC/3TC	**AII**	Triumeq (dolutegravir 50 mg/ abacavir 600 mg/lamivudine 300 mg)	Brand-Only	$4,014	$4,817	See WAC	$4,014
DTG + ABC/3TC	**AII**	Tivicay (dolutegravir 50 mg) + Generic abacavir 600 mg/ lamivudine 300 mg	Hybrid	$2,395 (DTG)	$2,874 (DTG)	$42 (ABC/3TC)	$2,437
Boosted PI Plus Two NRTIs							
DRV/c/TAF/FTC	**BI**	Symtuza (darunavir 800 mg/ cobicistat 150 mg/tenofovir alafenamide 10 mg/emtricitabine 200 mg)	Brand-Only	$4,717	$5,660	See WAC	$4,717
DRV/c + TAF/FTC	**BI**	Prezcobix (darunavir 800 mg/ cobicistat 150 mg) + Descovy (tenofovir alafenamide 25 mg/ emtricitabine 200 mg)	Brand-Only	$4,669	$5,603	See WAC	$4,669
DRV/c + TDF/FTC	**BI**	Prezcobix (darunavir 800 mg/ cobicistat 150 mg) + Truvada (tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg)	Brand-Only	$2,467 (DRV/c) + $1,842 (TDF/FTC)	$2,960 (DRV/c) + $1,842 (TDF/FTC)	See WAC	$4,309
DRV/c + TDF/FTC	**BI**	Prezcobix (darunavir 800 mg/ cobicistat 150 mg) + Generic tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg	Hybrid	$2,467 (DRV/c)	$2,960 (DRV/c)	$14 (TDF/FTC)	$2,481
DRV + r + TDF/FTC	**BI**	Prezista (darunavir 800 mg) + Norvir (ritonavir 100 mg) + Truvada (tenofovir disoproxil fumarate 300 mg / emtricitabine 200 mg)	Brand-Only	$2,158 (DRV) + $257 (r) + $1,842 (TDF/FTC)	$2,590 (DRV) + $309 (r) + $2,643 (TDF/FTC)	See WAC	$4,257

Table 22a. Benchmark Prices for Recommended Initial Antiretroviral Therapy Regimens

Regimen	Evidence Rating[a]	Specific Option	Option Type[b]	WAC	AWP	NADAC	Est. Cash-Pay Cost[c]
DRV + r + TDF/FTC	**BI**	Generic darunavir 800 mg + Generic ritonavir 100 mg + Generic tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg	Generic	N/A	N/A	$64 (DRV) + $20 (r) + $14 (TDF/FTC)	$98
DRV/c + ABC/3TC	**BII**	Prezcobix (darunavir 800 mg/ cobicistat 150 mg) + Generic abacavir 600 mg/lamivudine 300 mg	Hybrid	$2,467 (DRV/c)	$2,960 (DRV/c)	$42 (ABC/3TC)	$2,509
DRV + r + ABC/3TC	**BII**	Generic darunavir 800 mg + Generic ritonavir 100 mg + Generic abacavir 600 mg/lamivudine 300 mg	Generic	N/A	N/A	$64 (DRV) + $20 (r) + $42 (ABC/3TC)	$126
NNRTI Plus Two NRTIs							
DOR/TDF/3TC	**BI**	Delstrigo (doravirine 100 mg/ tenofovir disoproxil fumarate 300 mg/lamivudine 300 mg)	Brand-Only	$2,870	$3,444	See WAC	$2,870
DOR + TAF/FTC	**BIII**	Pifeltro (doravirine 100 mg) + Descovy (tenofovir alafenamide 25 mg/emtricitabine 200 mg)	Brand-Only	$4,084	$4,901	See WAC	$4,084
DOR + TDF/FTC	**BIII**	Pifeltro (doravirine 100 mg) + Truvada (tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg)	Brand-Only	$1,882 (DOR) + $1,842 (TDF/FTC)	$2,258 (DOR) + $2,642 (TDF/FTC)	See WAC	$3,724
DOR + TDF/FTC	**BIII**	Pifeltro (doravirine 100 mg) + Generic tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg	Hybrid	$1,882 (DOR)	$2,258 (DOR)	$14 (TDF/FTC)	$1,896
RPV/TAF/FTC	**BII**	Odefsey (rilpivirine 25 mg/tenofovir alafenamide 25 mg/emtricitabine 200 mg)	Brand-Only	$4,025	$4,830	See WAC	$4,025

Table 22a. Benchmark Prices for Recommended Initial Antiretroviral Therapy Regimens

Notes: WAC and AWP data are as of May 2026.[86] NADAC data are from the CMS National Average Drug Acquisition Cost survey,[87] effective date May 27, 2026.

[a] Evidence ratings correspond to those recommended for initial therapy in the Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents With HIV (see Initial Combination Antiretroviral Regimens for People With HIV).

[b] Option types: Brand-Only = all branded components; Hybrid = mix of branded and generic components; Generic = all components available as generics.

[c] Estimated Cash-Pay Cost reflects the sum of NADAC (for generic components) and WAC (for branded components) as a practical floor estimate for uninsured patients using retail or DTC pharmacies.

Key: 3TC = lamivudine; ABC = abacavir; AWP = Average Wholesale Price; BIC = bictegravir; CAB-LA = long-acting cabotegravir; CMS = Centers for Medicare & Medicaid Services; DOR = doravirine; DRV/c = darunavir/cobicistat; DTG = dolutegravir; FTC = emtricitabine; INSTI = integrase strand transfer inhibitor; N/A = not applicable; NADAC = National Average Drug Acquisition Cost; NNRTI = non-nucleoside reverse transcriptase inhibitor; NRTI = nucleoside reverse transcriptase inhibitor; PrEP = pre-exposure prophylaxis; r = ritonavir; RPV = rilpivirine; TAF = tenofovir alafenamide; TDF = tenofovir disoproxil fumarate; WAC = Wholesale Acquisition Cost

Table 22b. Benchmark Prices for Switch and Optimization Antiretroviral Therapy Regimens in the Setting of Viral Suppression

For people who have no history of resistance or virologic failure, one can likely switch to a regimen recommended for initial antiretroviral therapy (ART) (see Table 22a). Additionally, several regimens not used as initial therapy have been studied extensively as switch therapy. The cost data for these regimens are listed below.

CASH-PAY ESTIMATE APPLICABILITY: These estimates approximate out-of-pocket cost for individuals paying cash for ART in narrowly defined circumstances—those who are uninsured, underinsured, or otherwise ineligible for the Ryan White HIV/AIDS Program, AIDS Drug Assistance Program, or manufacturer patient assistance programs. They **do not** reflect cost-sharing obligations (copayments, coinsurance, deductibles) where primary health coverage applies to these products. Generic-component estimates reflect direct-to-consumer pharmacy pricing (e.g., Cost Plus Drugs); Wholesale Acquisition Cost (WAC) is used as the acquisition-cost surrogate for branded products without National Average Drug Acquisition Cost (NADAC) data. For hybrid regimens, the WAC and AWP columns reflect the branded component(s) only. The generic component(s) are priced via NADAC in the NADAC column. The Estimated Cash-Pay Cost is the sum of branded WAC + generic NADAC.

Note: In Table 22b, WAC, AWP, NADAC, and the Estimated Cash-Pay Cost are **monthly values unless otherwise noted.**

Regimen	Specific Option	Option Type[a]	WAC	AWP	NADAC	Est. Cash-Pay Cost[b]
Two-Drug Oral Regimens						
Two-Drug Regimens—INSTI + Capsid Inhibitor						
BIC/LEN[c]	Bixlenvo (bictegravir 75 mg/lenacapavir 50 mg)	Brand-Only	$4,595	$5,514	See WAC	$4,595
Two-Drug Regimens—INSTI + NNRTI						
DTG/RPV	Juluca (dolutegravir 50 mg/rilpivirine 25 mg)	Brand-Only	$3,762	$4,515	See WAC	$3,762
Two-Drug Regimens—NNRTI + NRTI						
DOR/ISL	Idvynso (doravirine 100 mg/islatravir 0.25 mg)	Brand-Only	$4,455	$5,346	See WAC	$4,455

Table 22b. Benchmark Prices for Switch and Optimization Antiretroviral Therapy Regimens in the Setting of Viral Suppression

Regimen	Specific Option	Option Type[a]	WAC	AWP	NADAC	Est. Cash-Pay Cost[b]
Two-Drug Regimens—Boosted Protease Inhibitor + Lamivudine						
DRV/c + 3TC	Prezcobix (darunavir 800 mg/cobicistat 150 mg) + Epivir (lamivudine 300 mg)	Brand-Only	$2,467 (DRV/c) + $416 (3TC)	$2,960 (DRV/c) + $499 (3TC)	See WAC	$2,883
DRV/c + 3TC	Prezcobix (darunavir 800 mg/cobicistat 150 mg) + Generic lamivudine 300 mg	Hybrid	$2,467 (DRV/c)	$2,960 (DRV/c)	$39 (3TC)	$2,506
DRV + r + 3TC	Prezista (darunavir 800 mg) + Norvir (ritonavir 100 mg) + Epivir (lamivudine 300 mg)	Brand-Only	$2,158 (DRV) + $257 (r) + $416 (3TC)	$2,590 (DRV) + $309 (r) + $499 (3TC)	See WAC	$2,831
DRV + r + 3TC	Generic darunavir 800 mg + Generic ritonavir 100 mg + Generic lamivudine 300 mg	Generic	N/A	N/A	$64 (DRV) + $20 (r) + $39 (3TC)	$123
Two-Drug Regimen—Boosted Darunavir + Dolutegravir						
DRV + r + DTG	Tivicay (dolutegravir 50 mg) + Prezista (darunavir 800 mg) + Norvir (ritonavir 100 mg)	Brand-Only	$2,395 (DTG) + $2,158 (DRV) + $257 (r)	$2,874 (DTG) + $2,590 (DRV) + $309 (r)	See WAC	$4,810
DRV + r + DTG	Tivicay (dolutegravir 50 mg) + Generic darunavir 800 mg + Generic ritonavir 100 mg	Hybrid	$2,395 (DTG)	$2,874 (DTG)	$64 (DRV) + $20 (r)	$2,479
Long-Acting Intramuscular Cabotegravir/Rilpivirine						
CAB/RPV[d] (Every 4 Weeks)	Cabenuva (cabotegravir 400 mg/2 mL + rilpivirine 600 mg/2 mL); 1 IM injection set every 4 weeks	Brand-Only	$4,639 (every 4 weeks)	$5,706 (every 4 weeks)	See WAC	$4,639

Table 22b. Benchmark Prices for Switch and Optimization Antiretroviral Therapy Regimens in the Setting of Viral Suppression

Regimen	Specific Option	Option Type[a]	WAC	AWP	NADAC	Est. Cash-Pay Cost[b]
CAB/RPV[d] (Every 8 Weeks)	Cabenuva (cabotegravir 600 mg / 3 mL + rilpivirine 900 mg / 3 mL); 1 IM injection set every 8 weeks	Brand-Only	$6,959 (every 8 weeks)	$8,560 (every 8 weeks)	See WAC	$6,959

Notes: Cross-references: For pricing of individual ARV components, see Table 22c. For initial-therapy benchmark pricing, see Table 22a.

WAC and AWP data are as of May 2026 (BIC/LEN as of September 2026).[86] NADAC data are from the CMS National Average Drug Acquisition Cost survey,[87] effective date May 27, 2026.

[a] Option types: Brand-Only = all branded components; Hybrid = mix of branded and generic components; Generic = all components available as generics.

[b] Estimated Cash-Pay Cost reflects the sum of NADAC (for generic components) and WAC (for branded components) as a practical floor estimate for uninsured patients using retail or DTC pharmacies.

[c] Pricing does not include the four 300-mg tablets of standalone LEN required as part of the 2-day initiation regimen. WAC and AWP pricing for four LEN tablets, as of May 2026, are $3,250 and $3,900, respectively. Starter packs containing four LEN tablets and a 30-day supply of BIC/LEN are pending commercialization; no pricing data are available as of September 2026.

[d] Thirty-day supplies of oral CAB and RPV for optional lead-in dosing are provided by the manufacturer through non-commercial pharmacy dispensing without cost.

Key: 3TC = lamivudine; ARV = antiretroviral; AWP = Average Wholesale Price; BIC = bictegravir; CAB = cabotegravir; CMS = Centers for Medicare & Medicaid Services; DOR = doravirine; DRV = darunavir; DRV/c = darunavir/cobicistat; DTG = dolutegravir; IM = intramuscular; ISL = islatravir; INSTI = integrase strand transfer inhibitor; LEN = lenacapavir; N/A = not applicable; NADAC = National Average Drug Acquisition Cost; NNRTI = non-nucleoside reverse transcriptase inhibitor; NRTI = nucleoside reverse transcriptase inhibitor; RPV = rilpivirine; r = ritonavir; WAC = Wholesale Acquisition Cost

Table 22c. Benchmark Prices for Individual Antiretroviral Medications

Table 22c provides benchmark pricing for antiretroviral (ARV) products across drug classes—including individual agents and coformulated products—and is intended as a comprehensive pricing reference. Organized by drug class rather than by clinical indication, it complements Tables 22a and 22b by enabling clinicians to look up the cost of specific ARV products when evaluating individual component substitutions, comparing coformulated options, or assessing costs outside the regimen-level comparisons provided in those tables. Agents no longer recommended by the Panel due to serious adverse effects are not included in this table (see footnote).

Note: In Table 22c, WAC, AWP, and NADAC are **monthly values unless otherwise noted.**

ARV Drug Brand and Generic Names	Strength, Formulation	Quantity	WAC	AWP	NADAC[a]
NRTIs					
Abacavir *Generic Only*	300-mg tablet	60 tablets	$100–$150	$578–$603	$38
Emtricitabine *Generic or Emtriva*	200-mg capsule	30 capsules	Generic $390–$536/ Emtriva $537	Generic $482–$644/ Emtriva $644	$372[b]
Lamivudine *Generic or Epivir*	300-mg tablet	30 tablets	Generic $40–$415/ Epivir $416	Generic $429/ Epivir $499	$39
Tenofovir Disoproxil Fumarate *Generic or Viread*	300-mg tablet	30 tablets	Generic $27–$300/ Viread $1,254	Generic $167– $1,216/ Viread $1,504	$10
NRTI Combination Products					
Abacavir/Lamivudine *Generic Only*	600-mg/300-mg tablet	30 tablets	$100–$302	$1,393–$1,395	$42
Tenofovir Alafenamide/Emtricitabine *Descovy*	25-mg/200-mg tablet	30 tablets	$2,202	$2,643	See WAC
Tenofovir Disoproxil Fumarate/Emtricitabine *Generic or Truvada*	300-mg/200-mg tablet	30 tablets	Generic $25–$853/ Truvada $1,842	Generic $70–$2,100/ Truvada $2,211	$14

Table 22c. Benchmark Prices for Individual Antiretroviral Medications

ARV Drug Brand and Generic Names	Strength, Formulation	Quantity	WAC	AWP	NADAC[a]
Tenofovir Disoproxil Fumarate/Lamivudine *Cimduo*	300-mg/300-mg tablet	30 tablets	$1,244	$1,493	See WAC
NNRTIs					
Doravirine *Pifeltro*	100-mg tablet	30 tablets	$1,882	$2,258	See WAC
Efavirenz *Generic*	600-mg tablet	30 tablets	$80–$894	$1,043–$1,118	$42
Etravirine *Generic or Intelence*	200-mg tablet	60 tablets	Generic $1,287/ Intelence $1,498	Generic $1,609/ Intelence $1,797	$677
Rilpivirine *Generic or Edurant*	25-mg tablet	30 tablets	Generic $1,254/ Edurant $1,483	Generic $1,505/ Edurant $1,780	See WAC
PIs					
Atazanavir *Generic or Reyataz*	200-mg capsule	60 capsules	Generic $178–$316/ Reyataz $1,463	Generic $1,502–$1,668/Reyataz $1,756	$63
Atazanavir *Generic or Reyataz*	300-mg capsule	30 capsules	Generic $178–$316/ Reyataz $1,449	Generic $1,502–$1,652/Reyataz $1,739	$81
Atazanavir/Cobicistat *Evotaz*	300-mg/150-mg tablet	30 tablets	$1,605	$1,927	See WAC
Darunavir *Generic or Prezista*	600-mg tablet	60 tablets	Generic $60–$1,145/ Prezista $2,158	Generic $1,373–$2,388/Prezista $2,590	$69
Darunavir *Generic or Prezista*	800-mg tablet	30 tablets	Generic $60–$1,153/ Prezista $2,158	Generic $1,384–$2,388/Prezista $2,590	$64

Table 22c. Benchmark Prices for Individual Antiretroviral Medications

ARV Drug Brand and Generic Names	Strength, Formulation	Quantity	WAC	AWP	NADAC[a]
Darunavir/Cobicistat *Prezcobix*	800-mg/150-mg tablet	30 tablets	$2,467	$2,960	See WAC
Lopinavir/Ritonavir *Generic, or Kaletra*	200-mg/50-mg tablet	120 tablets	Generic $885/ Kaletra $1,024	Generic $1,106/ Kaletra $1,229	$525
Tipranavir *Aptivus*	250-mg capsule	120 capsules	$2,054	$2,466	See WAC
INSTIs					
Dolutegravir *Tivicay*	50-mg tablet	30 tablets (or 60 tablets)	30 tablets $2,395/ 60 tablets $4,790	30 tablets $2,874/ 60 tablets $5,748	See WAC
Raltegravir *Isentress*	400-mg tablet	60 tablets	$2,131	$2,557	See WAC
Raltegravir *Isentress HD*	600-mg tablet	60 tablets	$2,131	$2,557	See WAC
Capsid Inhibitor					
Lenacapavir *Sunlenca*	300-mg tablet, or 927-mg/1.5-mL injection kit	4–5 tablets oral (1-time loading dose) then 1 injection kit (every 6 months)	4 tablets $3,250/ 5 tablets $4,184 (1-time loading dose) Injection kit $19,500 (every 6 months)	4 tablets $3,900/ 5 tablets $5,021 (1-time loading dose) Injection kit $23,400 (every 6 months)	See WAC
CCR5 Antagonist					
Maraviroc *Generic or Selzentry*	150-mg tablet	60 tablets	Generic $700/ Selzentry $1,730	Generic $1,764/ Selzentry $2,076	$549
Maraviroc *Generic or Selzentry*	300-mg tablet	60 tablets	Generic $700/ Selzentry $1,730	Generic $1,764/ Selzentry $2,076	$480

Table 22c. Benchmark Prices for Individual Antiretroviral Medications

ARV Drug Brand and Generic Names	Strength, Formulation	Quantity	WAC	AWP	NADAC[a]
CD4-Directed Post-Attachment Inhibitor					
Ibalizumab-uiyk *Trogarzo*	200-mg/mL vial	8 vials per month	$12,196	$14,635	See WAC
gp120-Directed Attachment Inhibitor					
Fostemsavir *Rukobia*	600-mg tablet	60 tablets	$9,651	$11,582	See WAC
Coformulated Complete Regimens—STRs					
Bictegravir/Tenofovir Alafenamide/Emtricitabine *Biktarvy*	50-mg/25-mg/ 200-mg tablet	30 tablets	$4,216	$5,059	See WAC
Bictegravir/Lenacapavir *Bixlenvo*[c]	75-mg/50-mg tablet	30 tablets	$4,595	$5,514	See WAC
Darunavir/Cobicistat/Tenofovir Alafenamide/Emtricitabine *Symtuza*	800-mg/150-mg/ 10-mg/200-mg tablet	30 tablets	$4,717	$5,660	See WAC
Dolutegravir/Abacavir/Lamivudine *Triumeq*	50-mg/600-mg/ 300-mg tablet	30 tablets	$4,014	$4,817	See WAC
Dolutegravir/Lamivudine *Dovato*	50-mg/300-mg tablet	30 tablets	$3,250	$3,901	See WAC
Dolutegravir/Rilpivirine *Juluca*	50-mg/25-mg tablet	30 tablets	$3,762	$4,515	See WAC
Doravirine/Islatravir *Idvynso*	100-mg/0.25-mg tablet	30 tablets	$4,455	$5,346	See WAC
Doravirine/Tenofovir Disoproxil Fumarate/Lamivudine *Delstrigo*	100-mg/300-mg/ 300-mg tablet	30 tablets	$2,870	$3,444	See WAC

Table 22c. Benchmark Prices for Individual Antiretroviral Medications

ARV Drug Brand and Generic Names	Strength, Formulation	Quantity	WAC	AWP	NADAC[a]
Efavirenz/Tenofovir Disoproxil Fumarate/Emtricitabine *Generic Only*	600-mg/300-mg/ 200-mg tablet	30 tablets	$82–$252	$302–$3,414	$36
Efavirenz/Tenofovir Disoproxil Fumarate/Lamivudine *Symfi (Generic)*	600-mg/300-mg/ 150-mg tablet	30 tablets	$2,023	$2,427	See WAC
Elvitegravir/Cobicistat/Tenofovir Alafenamide/Emtricitabine *Genvoya*	150-mg/150-mg/ 10-mg/200-mg tablet	30 tablets	$4,423	$5,307	See WAC
Elvitegravir/Cobicistat/Tenofovir Disoproxil Fumarate/Emtricitabine *Stribild*	150-mg/150-mg/ 300-mg/200-mg tablet	30 tablets	$4,639	$5,567	See WAC
Rilpivirine/Tenofovir Alafenamide/Emtricitabine *Odefsey*	25-mg/25-mg/ 200-mg tablet	30 tablets	$4,025	$4,830	See WAC
Rilpivirine/Tenofovir Disoproxil Fumarate/Emtricitabine *Generic or Complera*	25-mg/300-mg/ 200-mg tablet	30 tablets	Generic $3,499/ Complera $4,025	Generic $4,374/ Complera $4,830	$3,450[b]
Copackaged Combination Products—Long-Acting Injectable Regimens					
Cabotegravir/Rilpivirine *Cabenuva*[d]	**Every 4 Weeks:** • 400-mg/2-mL + 600-mg/2-mL vials	2 vials	$4,639 (every 4 weeks)	$5,706 (every 4 weeks)	See WAC
Cabotegravir/Rilpivirine *Cabenuva*[d]	**Every 8 Weeks:** • 600-mg/2-mL + 900-mg/3-mL vials	2 vials (every 8 weeks)	$6,959 (every 8 weeks)	$8,560 (every 8 weeks)	See WAC
PK Enhancers (Boosters)					
Ritonavir *Generic or Norvir*	100-mg tablet	30 tablets	Generic $80–$160/ Norvir $257	Generic $278/ Norvir $309	$20

Notes: NADAC monthly costs are calculated as: average NADAC per unit × standard monthly dispensing quantity. NADAC per unit values reflect the average across all manufacturers with reported data.

Table 22c. Benchmark Prices for Individual Antiretroviral Medications

WAC and AWP data are as of May 2026 (BIC/LEN as of September 2026).[86] NADAC data are from the CMS National Average Drug Acquisition Cost survey,[87] effective date May 27, 2026.

Certain older ARV medications, such as nevirapine and oral zidovudine, can cause serious adverse effects and are no longer recommended by the Panel for use in adults or adolescents and are not suitable for optimizing ARV in the setting of viral suppression; therefore, they are not included in this table.

[a] NADAC Note: For generic medications, NADAC reflects average pharmacy acquisition cost and provides the most relevant benchmark for cash-pay pricing at retail and DTC pharmacies. “See WAC” indicates NADAC data are unavailable.

[b] NADAC value appears anomalous (unexpectedly high or inconsistent with WAC). This may reflect authorized generic pricing, limited dispensing volume, or data entry issues in the CMS survey. Clinicians and patients should verify current pricing directly with the dispensing pharmacy.

[c] Pricing does not include the four 300-mg tablets of standalone LEN required as part of the 2-day initiation regimen. WAC and AWP pricing for four LEN tablets, as of May 2026, are $3,250 and $3,900, respectively. Starter packs containing four LEN tablets and a 30-day supply of BIC/LEN are pending commercialization; no pricing data are available as of September 2026.

[d] Thirty-day supplies of oral CAB and RPV for optional lead-in dosing are provided by the manufacturer through non-commercial pharmacy dispensing without cost.

Key: ARV = antiretroviral; AWP = Average Wholesale Price; CCR5 = C-C chemokine receptor type 5; CD4 = CD4 T lymphocyte; CMS = Centers for Medicare & Medicaid Services; DTC = direct-to-consumer; gp120 = glycoprotein 120; INSTI = integrase strand transfer inhibitor; NADAC = National Average Drug Acquisition Cost; NNRTI = non-nucleoside reverse transcriptase inhibitor; NRTI = nucleoside/nucleotide reverse transcriptase inhibitor; PI = protease inhibitor; PK = pharmacokinetic; STR = single-tablet regimen; WAC = Wholesale Acquisition Cost

Knowledge Gaps

Research is needed to—

- Examine how federal and state policies, insurance requirements and utilization management, and ART prices, affect people with HIV (including access, adherence, equity, and clinical outcomes) and Ending the HIV Epidemic in the U.S. initiative metrics and indicators.
- Examine the clinical impact of utilization management requirements—such as prior authorization and step therapy protocols—on ART adherence, virologic suppression, and treatment outcomes across diverse coverage settings and populations, including those experiencing coverage instability or care transitions.
- Investigate how insurance lapses and other transitions of care—including adolescents transitioning from pediatric to adult care, interstate relocation, and changes in employment—affect ART continuity, virologic suppression, and engagement in care among people with HIV.
- Understand the health care–associated and societal resource utilization of people with HIV who are not engaged in care, as well as the associated costs.
- Investigate how multimorbidity, aging, and polypharmacy affect ART selection and use for people with HIV, including access, equity, clinical outcomes, and patient- and health payer costs.
- Understand how accessible and widely used pharmacy-assisted programs are and the potential gaps for people who are uninsured.
- Examine the cumulative financial burden that can occur with additional medications to manage ART-associated side effects.
- Understand the implementation barriers and costs for people with HIV to access newer ART regimens (e.g., long-acting formulations) to improve equity and access.

References

1. Freedberg KA, Losina E, Weinstein MC, et al. The cost effectiveness of combination antiretroviral therapy for HIV disease. *N Engl J Med*. 2001;344(11):824-831. Available at: https://www.ncbi.nlm.nih.gov/pubmed/11248160.

2. Walensky RP, Sax PE, Nakamura YM, et al. Economic savings versus health losses: the cost-effectiveness of generic antiretroviral therapy in the United States. *Ann Intern Med*. 2013;158(2):84-92. Available at: https://www.ncbi.nlm.nih.gov/pubmed/23318310.

3. Bayoumi AM, Barnett PG, Joyce VR, et al. Cost-effectiveness of newer antiretroviral drugs in treatment-experienced patients with multidrug-resistant HIV disease. *J Acquir Immune Defic Syndr*. 2013;64(4):382-391. Available at: https://www.ncbi.nlm.nih.gov/pubmed/24129369.

4. Holmes CB, Hallett TB, Walensky RP, Barnighausen T, Pillay Y, Cohen MS. Effectiveness and cost-effectiveness of treatment as prevention for HIV. In: Holmes KK, Bertozzi S, Bloom BR, Jha P, eds. *Major Infectious Diseases*. 3rd ed. The World Bank; 2017:Chap 5. Available at: https://www.ncbi.nlm.nih.gov/pubmed/30212093.

5. Borre ED, Hyle EP, Paltiel AD, et al. The clinical and economic impact of attaining national HIV/AIDS strategy treatment targets in the United States. *J Infect Dis*. 2017;216(7):798-807. Available at: https://www.ncbi.nlm.nih.gov/pubmed/29029344.

6. Walensky RP, Ross EL, Kumarasamy N, et al. Cost-effectiveness of HIV treatment as prevention in serodiscordant couples. *N Engl J Med*. 2013;369(18):1715-1725. Available at: https://www.ncbi.nlm.nih.gov/pubmed/24171517.

7. Fauci AS, Redfield RR, Sigounas G, Weahkee MD, Giroir BP. Ending the HIV epidemic: a plan for the United States. *JAMA*. 2019;321(9):844-845. Available at: https://www.ncbi.nlm.nih.gov/pubmed/30730529.

8. U.S. Department of Health and Human Services. What is *Ending the HIV Epidemic in the U.S.*? 2021. Available at: https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview.

9. Walsh BS, Kesselheim AS, Rome BN. Medicaid spending on antiretrovirals from 2007 through 2019. *Clin Infect Dis*. 2023;76(5):833-841. Available at: https://www.ncbi.nlm.nih.gov/pubmed/36268585.

10. Figueroa JF, Katz IT, Hyle EP, et al. The association of HIV with health care spending and use among Medicare beneficiaries. *Health Aff (Millwood)*. 2022;41(4):581-588. Available at: https://www.ncbi.nlm.nih.gov/pubmed/35377765.

11. McCann NC, Horn TH, Hyle EP, Walensky RP. HIV antiretroviral therapy costs in the United States, 2012-2018. *JAMA Intern Med*. 2020;180(4):601-603. Available at: https://www.ncbi.nlm.nih.gov/pubmed/32011622.

12. Kaiser Family Foundation. 1.4 million lawfully present immigrants are expected to lose health coverage due to the 2025 tax and budget law. 2025. Available at: https://www.kff.org/immigrant-health/1-4-million-lawfully-present-immigrants-are-expected-to-lose-health-coverage-due-to-the-2025-tax-and-budget-law.

13. Kaiser Family Foundation. Understanding Medicaid cost sharing and policy changes from the 2025 reconciliation law. 2026. Available at: https://www.kff.org/medicaid/understanding-medicaid-cost-sharing-and-policy-changes-from-the-2025-reconciliation-law.

14. Kaiser Family Foundation. Medicaid and CHIP eligibility, enrollment, and renewal policies as states prepare for major Medicaid policy changes. 2026. Available at: https://www.kff.org/medicaid/medicaid-and-chip-eligibility-enrollment-and-renewal-policies-as-states-prepare-for-major-medicaid-policy-changes.

15. Association of State and Territorial Health Officials. ACA enhanced premium tax credits: legislative developments in 2025 and 2026. 2026. Available at: https://www.astho.org/communications/blog/2026/aca-enhanced-premium-tax-credits-legislative-developments-2025-2026.

16. Kaiser Family Foundation. ACA marketplace premium payments would more than double on average next year if enhanced premium tax credits expire. 2025. Available at: https://www.kff.org/affordable-care-act/aca-marketplace-premium-payments-would-more-than-double-on-average-next-year-if-enhanced-premium-tax-credits-expire.

17. National Alliance of State & Territorial AIDS Directors. NASTAD ADAP watch - April 2026. 2026. Available at: https://nastad.org/resources/nastad-adap-watch-april-2026.

18. Kaiser Family Foundation. 5 key facts about Medicaid coverage for people with HIV. 2025. Available at: https://www.kff.org/medicaid/issue-brief/5-key-facts-about-medicaid-coverage-for-people-with-hiv.

19. Kaiser Family Foundation. Status of state Medicaid expansion decisions. 2026. Available at: https://www.kff.org/medicaid/status-of-state-medicaid-expansion-decisions.

20. Kates J, Dawson L, Horn TH, et al. Insurance coverage and financing landscape for HIV treatment and prevention in the USA. *Lancet*. 2021;397(10279):1127-1138. Available at: https://www.ncbi.nlm.nih.gov/pubmed/33617778.

21. Graydon TR. Medicaid and the HIV/AIDS epidemic in the United States. *Health Care Financ Rev*. 2000;22(1):117-122. Available at: https://www.ncbi.nlm.nih.gov/pubmed/25372229.

22. Kahn JG, Haile B, Kates J, Chang S. Health and federal budgetary effects of increasing access to antiretroviral medications for HIV by expanding Medicaid. *Am J Public Health*. 2001;91(9):1464-1473. Available at: https://www.ncbi.nlm.nih.gov/pubmed/11527783.

23. Adamson B, Lipira L, Katz AB. The impact of ACA and Medicaid expansion on progress toward unaids 90-90-90 goals. *Curr HIV/AIDS Rep*. 2019;16(1):105-112. Available at: https://www.ncbi.nlm.nih.gov/pubmed/30762215.

24. Hellinger FJ. In four ACA expansion states, the percentage of uninsured hospitalizations for people with HIV declined, 2012–14. *Health Aff (Millwood)*. 2015;34(12):2061-2068. Available at: https://www.ncbi.nlm.nih.gov/pubmed/26643626.

25. Berry SA, Fleishman JA, Yehia BR, et al. Healthcare coverage for HIV provider visits before and after implementation of the Affordable Care Act. *Clin Infect Dis*. 2016;63(3):387-395. Available at: https://www.ncbi.nlm.nih.gov/pubmed/27143660.

26. Raifman J, Althoff K, Rebeiro PF, et al. Human immunodeficiency virus (HIV) viral suppression after transition from having no healthcare coverage and relying on Ryan White HIV/AIDS Program support to Medicaid or private health insurance. *Clin Infect Dis*. 2019;69(3):538-541. Available at: https://www.ncbi.nlm.nih.gov/pubmed/30590421.

27. Rebeiro PF, Thome JC, Gange SJ, et al. The impact of Medicaid expansion under the Affordable Care Act on HIV care continuum outcomes across the United States. *Health Aff Sch*. 2024;2(10):qxae128. Available at: https://www.ncbi.nlm.nih.gov/pubmed/39445109.

28. Goyal R, Luca D, Klein PW, et al. Cost-effectiveness of HRSA's Ryan White HIV/AIDS Program? *J Acquir Immune Defic Syndr*. 2021;86(2):174-181. Available at: https://www.ncbi.nlm.nih.gov/pubmed/33093330.

29. Lee F, Khanna AS, Hallmark CJ, et al. Expanding Medicaid to reduce human immunodeficiency virus transmission in Houston, Texas: insights from a modeling study. *Med Care*. 2023;61(1):12-19. Available at: https://www.ncbi.nlm.nih.gov/pubmed/36477617.

30. Essam Nkodo EN, Furl R, Lyden E, Arroyo M, Fadul N. Association between enrollment in Medicaid expansion and healthcare utilization and outcomes in people with HIV in Nebraska, U.S.A. *AIDS Care*. 2026:1717-1732. Available at: https://www.ncbi.nlm.nih.gov/pubmed/41239741.

31. McManus KA, Killelea A, Honeycutt E, An Z, Keim-Malpass J. Assisters succeed in insurance navigation for people living with HIV and people at increased risk of HIV in a complex coverage landscape. *AIDS Res Hum Retroviruses*. 2020;36(10):842-851. Available at: https://www.ncbi.nlm.nih.gov/pubmed/32631076.

32. Gopalsamy SN, Shah NS, Marconi VC, et al. The impact of churn on HIV outcomes in a Southern United States clinical cohort. *Open Forum Infect Dis*. 2022;9(7):ofac338. Available at: https://www.ncbi.nlm.nih.gov/pubmed/35899283.

33. Dague L, Myerson R. Loss of Medicaid coverage during the renewal process. *JAMA Health Forum*. 2024;5(5):e240839. Available at: https://www.ncbi.nlm.nih.gov/pubmed/38700852.

34. Kaiser Family Foundation. An examination of Medicaid renewal outcomes and enrollment changes at the end of the unwinding. 2024. Available at: https://www.kff.org/medicaid/issue-brief/an-examination-of-medicaid-renewal-outcomes-and-enrollment-changes-at-the-end-of-the-unwinding.

35. McIntyre A, Morein M, Kim J, Figueroa JF, Sommers BD. US coverage changes during Medicaid unwinding in 2023. *JAMA Health Forum*. 2025;6(10):e253887. Available at: https://www.ncbi.nlm.nih.gov/pubmed/41071562.

36. Rome BN, Han J, McIntyre A, Kesselheim AS, Sommers BD. Changes in medication use during Medicaid continuous enrollment and unwinding. *JAMA Health Forum*. 2026;7(1):e255890. Available at: https://www.ncbi.nlm.nih.gov/pubmed/41481327.

37. Kaiser Family Foundation. Section 1115 waiver watch: Medicaid pre-release services for people who are incarcerated. 2024. Available at: https://www.kff.org/medicaid/issue-brief/section-1115-waiver-watch-medicaid-pre-release-services-for-people-who-are-incarcerated.

38. Health Resources and Services Administration. The use of Ryan White HIV/AIDS Program funds for core medical services and support services for people living with HIV who are incarcerated and justice involved. 2018. Available at: https://ryanwhite.hrsa.gov/sites/default/files/ryanwhite/grants/pcn-18-02-people-who-are-incarcerated.pdf.

39. Khazanchi R, Powers S, Killelea A, et al. Access to a novel first-line single-tablet HIV antiretroviral regimen in affordable care act marketplace plans, 2018–2020. *J Pharm Policy Pract*. 2023;16(1):57. Available at: https://www.ncbi.nlm.nih.gov/pubmed/37081570.

40. Prajapati G, Fleming SP, Badowski ME, et al. Real-world utilization management of antiretrovirals for HIV treatment and pre-exposure prophylaxis: a systematic literature review. *Open Forum Infect Dis*. 2026;13(ofaf695)(Suppl 1):ofaf695.522. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC12791998.

41. National Archives and Records Administration. 423.120 access to covered Part D drugs. 2026. Available at: https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-423/subpart-C/section-423.120.

42. Berger RJ, Gaudiani MA, Fortin PT, Taliaferro K. Insurance denials: a comprehensive review and navigating the peer review process. *J Am Acad Orthop Surg*. 2026;34(10):e1368-e1374. Available at: https://www.ncbi.nlm.nih.gov/pubmed/42065609.

43. Zamani-Hank Y. The Affordable Care Act and the burden of high cost sharing and utilization management restrictions on access to HIV medications for people living with HIV/AIDS. *Popul Health Manag*. 2016;19(4):272-8. Available at: https://www.ncbi.nlm.nih.gov/pubmed/26565514.

44. Goldman DP, Joyce GF, Zheng Y. Prescription drug cost sharing: associations with medication and medical utilization and spending and health. *JAMA*. 2007;298(1):61-69. Available at: https://www.ncbi.nlm.nih.gov/pubmed/17609491.

45. Doshi JA, Li P, Ladage VP, Pettit AR, Taylor EA. Impact of cost sharing on specialty drug utilization and outcomes: a review of the evidence and future directions. *Am J Manag Care*. 2016;22(3):188-97. Available at: https://www.ncbi.nlm.nih.gov/pubmed/27023024.

46. Kolasa K, Kowalczyk M. Does cost sharing do more harm or more good? - a systematic literature review. *BMC Public Health*. 2016;16:992. Available at: https://www.ncbi.nlm.nih.gov/pubmed/27633253.

47. Campbell DJ, Soril LJ, Clement F. Impact of cost-sharing mechanisms on patient-borne medication costs. *JAMA Intern Med*. 2016;176(11):1703-1704. Available at: https://www.ncbi.nlm.nih.gov/pubmed/27618359.

48. Remler DK, Greene J. Cost-sharing: a blunt instrument. *Annu Rev Public Health*. 2009;30:293-311. Available at: https://www.ncbi.nlm.nih.gov/pubmed/18976141.

49. Centers for Disease Control and Prevention. HIV surveillance special report: behavioral and clinical characteristics of persons with diagnosed HIV infection—Medical Monitoring Project, United States 2022 cycle (June 2022–May 2023). 2024. Available at: https://stacks.cdc.gov/view/cdc/159149.

50. Maciejewski ML, Farley JF, Parker J, Wansink D. Copayment reductions generate greater medication adherence in targeted patients. *Health Aff (Millwood)*. 2010;29(11):2002-2008. Available at: https://www.ncbi.nlm.nih.gov/pubmed/21041739.

51. Monroe AK, Myint L, Rutstein RM, et al. Factors associated with gaps in Medicaid enrollment among people with HIV and the effect of gaps on viral suppression. *J Acquir Immune Defic Syndr*. 2018;78(4):413-420. Available at: https://www.ncbi.nlm.nih.gov/pubmed/29697594.

52. McManus KA, Strumpf A, Killelea A, Horn T, Hamp A, Keim-Malpass J. Economic benefits of the United States' AIDS Drug Assistance Program: a systematic review of cost analyses to guide research and policy priorities. *Prev Med Rep*. 2022;29:101969. Available at: https://www.ncbi.nlm.nih.gov/pubmed/36161113.

53. McManus KA, Killelea A, Horn T, et al. Trends in AIDS Drug Assistance Program support for people with HIV, by age, sex, race, and US region, 2008–2021. *Am J Public Health*. 2025;115(8):1288-1298. Available at: https://www.ncbi.nlm.nih.gov/pubmed/40472297.

54. Centers for Disease Control and Prevention. HIV surveillance report: diagnoses, deaths, and prevalence of HIV in the United States and 6 territories and freely associated states, 2022. 2024.Available at: https://stacks.cdc.gov/view/cdc/156509.

55. Sayed BA, Finegold K, Olsen TA, et al. Medicare Part D enrollee out-of-pocket spending: recent trends and projected impacts of the Inflation Reduction Act. 2023. *Inflation Reduction Act Research Series*. 2023. Available at: https://www.ncbi.nlm.nih.gov/books/NBK616489.

56. Centers for Medicare & Medicaid Services. Before using this payment option. 2026. Available at: https://www.medicare.gov/prescription-payment-plan/before-payment-option.

57. Medicare Planning. Medicare Part D 2027: what's changing and what it means for you. 2026. Available at: https://www.medicareplanning.com/medicare-part-d-2027.

58. Kaiser Family Foundation. Changes to Medicare Part D in 2024 and 2025 under the Inflation Reduction Act and how enrollees will benefit. 2023. Available at: https://www.kff.org/medicare/issue-brief/changes-to-medicare-part-d-in-2024-and-2025-under-the-inflation-reduction-act-and-how-enrollees-will-benefit.

59. Centers for Medicare & Medicaid Services. Medicare prescription payment plan. 2024. Available at: https://www.cms.gov/inflation-reduction-act-and-medicare/part-d-improvements/medicare-prescription-payment-plan.

60. Centers for Medicare & Medicaid Services. Medicare Drug Price Negotiation Program: selected drugs for initial price applicability year 2028. 2026. Available at: https://www.cms.gov/files/document/factsheet-medicare-negotiation-selected-drug-list-ipay-2028.pdf.

61. AAM. 2025 U.S. generic & biosimilar medicines savings report. 2026. Available at: https://accessiblemeds.org/resources/reports/2025-savings-report.

62. Tseng CW, Dudley RA, Chen R, Walensky RP. Medicare Part D and cost-sharing for antiretroviral therapy and preexposure prophylaxis. *JAMA Netw Open*. 2020;3(4):e202739. Available at: https://www.ncbi.nlm.nih.gov/pubmed/32286656.

63. Girouard MP, Sax PE, Parker RA, et al. The cost-effectiveness and budget impact of 2-drug dolutegravir-lamivudine regimens for the treatment of HIV infection in the United States. *Clin Infect Dis*. 2016;62(6):784-791. Available at: https://www.ncbi.nlm.nih.gov/pubmed/26658053.

64. Suárez-García I, Alejos B, Ruiz-Algueró M, et al. Effectiveness and tolerability of dolutegravir and abacavir/lamivudine administered as two separate pills compared to their equivalent single-tablet regimen in a multicentre cohort in Spain. *J Int AIDS Soc*. 2021;24(7):e25758. Available at: https://www.ncbi.nlm.nih.gov/pubmed/34291580.

65. Golden MR, Taketomo RT, Pistoresi R, Sullivan D. Budget impact of eliminating Medicaid prior authorizations for antiretrovirals in Washington state. *Sex Transm Dis*. 2025;52(6):370-375. Available at: https://www.ncbi.nlm.nih.gov/pubmed/39932200.

66. Parker B, Ward T, Hayward O, et al. Cost-effectiveness of the long-acting regimen cabotegravir plus rilpivirine for the treatment of HIV-1 and its potential impact on adherence and viral transmission: a modelling study. *PLoS One*. 2021;16(2):e0245955. Available at: https://www.ncbi.nlm.nih.gov/pubmed/33529201.

67. Ross EL, Weinstein MC, Schackman BR, et al. The clinical role and cost-effectiveness of long-acting antiretroviral therapy. *Clin Infect Dis*. 2015;60(7):1102-1110. Available at: https://www.ncbi.nlm.nih.gov/pubmed/25583979.

68. Chen W, Gandhi M, Sax PE, et al. Projected benefits of long-acting antiretroviral therapy in nonsuppressed people with human immunodeficiency virus experiencing adherence barriers. *Open Forum Infect Dis*. 2023;10(8):ofad390. Available at: https://www.ncbi.nlm.nih.gov/pubmed/37601728.

69. Millham LRI, Scott JA, Sax PE, et al. Clinical and economic impact of ibalizumab for people with multidrug-resistant HIV in the United States. *J Acquir Immune Defic Syndr*. 2020;83(2):148-156. Available at: https://www.ncbi.nlm.nih.gov/pubmed/31929403.

70. Brogan AJ, Talbird SE, Davis AE, La EM, Kumar PN. The cost-effectiveness and budget impact of ibalizumab-uiyk for adults with multidrug-resistant HIV-1 infection in the United States. *Pharmacoeconomics*. 2021;39(4):421-432. Available at: https://www.ncbi.nlm.nih.gov/pubmed/33532919.

71. The United States House of Representatives. House of Representatives report no. 102-384. 1992. Available at: https://protect340b.org/wp-content/uploads/2018/05/HRReport-102-384-II-p-12.pdf.

72. Gale HB, Gitterman SR, Hoffman HJ, et al. Is frequent CD4+ T-lymphocyte count monitoring necessary for persons with counts >=300 cells/μL and HIV-1 suppression? *Clin Infect Dis*. 2013;56(9):1340-1343. Available at: https://www.ncbi.nlm.nih.gov/pubmed/23315315.

73. Hyle EP, Sax PE, Walensky RP. Potential savings by reduced CD4 monitoring in stable patients with HIV receiving antiretroviral therapy. *JAMA Intern Med*. 2013;173(18):1746-1748. Available at: https://www.ncbi.nlm.nih.gov/pubmed/23978894.

74. Bolles K, Woc-Colburn L, Hamill RJ, Hemmige V. Ordering patterns and costs of specialized laboratory testing by hospitalists and house staff in hospitalized patients with HIV at a county hospital: an opportunity for diagnostic stewardship. *Open Forum Infect Dis*. 2019;6(6):ofz158. Available at: https://www.ncbi.nlm.nih.gov/pubmed/31205970.

75. Weinstein MC, Goldie SJ, Losina E, et al. Use of genotypic resistance testing to guide HIV therapy: clinical impact and cost-effectiveness. *Ann Intern Med*. 2001;134(6):440-450. Available at: https://www.ncbi.nlm.nih.gov/pubmed/11255519.

76. Sax PE, Islam R, Walensky RP, et al. Should resistance testing be performed for treatment-naive HIV-infected patients? A cost-effectiveness analysis. *Clin Infect Dis*. 2005;41(9):1316-1323. Available at: https://www.ncbi.nlm.nih.gov/pubmed/16206108.

77. Koullias Y, Sax PE, Fields NF, Walensky RP, Hyle EP. Should we be testing for baseline integrase resistance in patients newly diagnosed with human immunodeficiency virus? *Clin Infect Dis*. 2017;65(8):1274-1281. Available at: https://www.ncbi.nlm.nih.gov/pubmed/28605418.

78. Hyle EP, Scott JA, Sax PE, et al. Clinical impact and cost-effectiveness of genotype testing at human immunodeficiency virus diagnosis in the United States. *Clin Infect Dis*. 2020;70(7):1353-1363. Available at: https://www.ncbi.nlm.nih.gov/pubmed/31055599.

79. Thompson MA, Horberg MA, Agwu AL, et al. Primary care guidance for persons with human immunodeficiency virus: 2020 update by the HIV Medicine Association of the Infectious Diseases Society of America. *Clin Infect Dis*. 2021;73(11):e3572-e3605. Available at: https://www.ncbi.nlm.nih.gov/pubmed/33225349.

80. Stevens ER, Nucifora KA, Irvine MK, et al. Cost-effectiveness of HIV care coordination scale-up among persons at high risk for sub-optimal HIV care outcomes. *PLoS One*. 2019;14(4):e0215965. Available at: https://www.ncbi.nlm.nih.gov/pubmed/31022280.

81. Flash MJE, Garland WH, Martey EB, et al. Cost-effectiveness of a medical care coordination program for people with HIV in Los Angeles County. *Open Forum Infect Dis*. 2019;6(12):ofz537. Available at: https://www.ncbi.nlm.nih.gov/pubmed/31909083.

82. Barocas JA, Morgan JR, Fiellin DA, et al. Cost-effectiveness of integrating buprenorphine-naloxone treatment for opioid use disorder into clinical care for persons with HIV/hepatitis C co-infection who inject opioids. *Int J Drug Policy*. 2019;72:160-168. Available at: https://www.ncbi.nlm.nih.gov/pubmed/31085063.

83. Health Resources and Services Administration. Ryan White HIV/AIDS Program services: eligible individuals & allowable uses of funds. 2018. Available at: https://ryanwhite.hrsa.gov/sites/default/files/ryanwhite/grants/service-category-pcn-16-02-final.pdf.

84. Forster R, Schnure M, Jones J, et al. The potential impact of ending the Ryan White HIV/AIDS Program on HIV incidence: a simulation study in 31 U.S. cities. *Ann Intern Med*. 2025;178(11):1580-1590. Available at: https://www.ncbi.nlm.nih.gov/pubmed/40921074.

85. Marshall T, The Supreme Court of the United States. U.S. Reports: Estelle v. Gamble, 429 U.S. 97. 1976. Available at: https://www.loc.gov/item/usrep429097.

86. Merative. Micromedex RED BOOK. 2026. Available at: https://www.merative.com/documents/micromedex-red-book.

87. U.S. Centers for Medicare & Medicaid Services. NADAC (National Average Drug Acquisition Cost) 2026. 2026. Available at: https://catalog.data.gov/dataset/nadac-national-average-drug-acquisition-cost-2026.