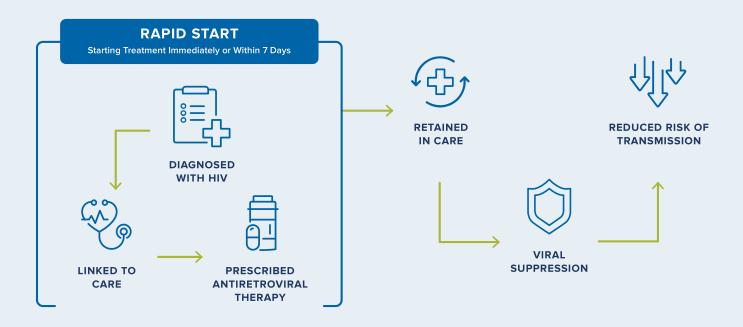
Benefits of Starting HIV Treatment as Soon as Possible (Rapid Start Strategy)

The U.S. Department of Health and Human Services (DHHS) guidelines recommend starting HIV treatment as soon as possible after an HIV diagnosis, an intervention/treatment strategy known as Rapid Start. Rapid Start may offer several benefits along the HIV care continuum: reducing time to treatment, improving linkage to and retention in care, reducing time to achieve viral suppression and thus improving health outcomes, and reducing the risk of HIV transmission.



Rapid Start (initiation of HIV treatment immediately or within 7 days of diagnosis) is endorsed by federal agencies in the United States and initiatives globally.

- Advancements in HIV therapies have resulted in regimens that people can start immediately
 after their HIV diagnosis (ideally on the same day or within 7 days of diagnosis). This
 treatment strategy is known as "Rapid Start."^{1,2} It is also referred to as rapid initiation of
 antiretroviral therapy (ART), immediate start ART, and same-day ART, among other names.
- The National HIV/AIDS Strategy (2022–2025) and the Ending the HIV Epidemic in the U.S. initiative endorse programs that focus on Rapid Start strategies to improve health outcomes of people living with HIV (PLWH).^{1,3}
- DHHS, the International Antiviral Society–USA, and the World Health Organization have incorporated Rapid Start recommendations into their guidelines.

Rapid Start strategies improve linkage to, and retention in, HIV care.

- Some studies have identified that Rapid Start strategies have shortened the time between HIV diagnosis and first care visit, reduced time to viral suppression, and improved overall retention in HIV care. 4-15
- From a synthesis of several Rapid Start studies, PLWH linked to HIV care soon after diagnosis were shown to be 35% more likely to start ART treatment within 90 days of HIV diagnosis, and 11% more likely to be retained in care 12 months after diagnosis.⁹

Rapid Start strategies help PLWH achieve viral suppression more quickly, which improves health outcomes and lowers the risk of transmitting HIV to others.

- With Rapid Start, time to viral suppression is significantly shorter, with some studies indicating
 time to suppression (undetectable viral load) can be cut in half.^{8,10,12} Research has also found
 that overarching rates of viral suppression among PLWH are significantly higher for those
 who participate in Rapid Start treatment strategies.^{9,11,13-15}
- People living with HIV who regularly take ART as prescribed can achieve and maintain an
 undetectable viral load, which means that the amount of HIV in the blood is so low a test
 cannot detect it. When the viral load is undetectable, HIV cannot be sexually transmitted to
 others, a concept referred to as Undetectable=Untransmittable (U=U).^{116,17}

Delaying the start of HIV treatment can result in poorer health outcomes and higher costs.

- Rapid Start strategies can decrease delays in treatment for some PLWH. 7.10,13
- Delayed initiation of ART after HIV diagnosis has been linked to negative health outcomes among PLWH, including increased clinical events, HIV-associated events, and cardiovascular disease.⁷
- In a study among Medicaid beneficiaries, delayed treatment was associated with increased hospitalizations and opportunistic infections and was ultimately associated with 12.2% higher total healthcare costs.^{18,19}

Rapid Start may help address HIV-related inequities.

- Differences across racial/ethnic groups have been identified within the HIV care continuum, which highlight gaps in care across these groups.
 - For example, 82.6% of White individuals were linked to care in 2019 compared to 78.4% of Black/African American individuals.
 - Additionally, 60.8.% of Black/African American individuals were virally suppressed in 2019 compared to 64.6% of Hispanic/Latinx individuals and 71.4% of White individuals.²⁰
- Rapid Start strategies can support equity by ensuring that all PLWH are linked to care and started on ART at the time of diagnosis.
- While Rapid Start strategies may not be appropriate for all individuals, they have been
 effective and well-accepted in populations with some of the highest rates of new HIV
 infection, including men who have sex with men (MSM) of color and young men.^{8,11,13,21-23}
 - For example, New York City sexual health clinics introduced JumpstART, a program that
 offers immediate on-site ART treatment at the time of diagnosis for newly diagnosed
 patients targeting a population that is largely Black/African American or Hispanic/Latinx
 and MSM.^{11,12}
- Rapid Start strategies have also been successfully implemented with other people who would benefit most from HIV treatment, including those with mental illness or substance misuse problems, including people who inject drugs, and those who are experiencing homelessness or are unstably housed.^{23,24}
 - One such program is the RAPID program in San Francisco, which achieved positive outcomes among these populations.⁸

Rapid Start is implemented and working in several states.

- Rapid Start strategies have been successfully implemented and are working across the nation, including in California, Florida, Georgia, Louisiana, New York, Maryland, and Rhode Island.^{8-13, 23-29}
- Successful Rapid Start programs have been implemented in a variety of settings (hospital, clinic, citywide), including a citywide consortium in San Francisco known as the Ward 86 Rapid ART Program (Ward 86). This program facilitated same-day ART at the first visit post-HIV diagnosis, where clients received multidisciplinary evaluation, support, and insurance enrollment and optimization.²⁹
- In 2016, the Miami-Dade County health department conducted a study to explore comparative HIV care outcomes of patients enrolled in a test-and-treat (T&T) initiative versus those not in the program. The T&T program offered same-day or next-day Rapid Start and was found to decrease the time from initial diagnosis to ART initiation from 60 days to 6 days.¹³

References

- The White House. 2021. National HIV/AIDS Strategy for the United States 2022-2025. Washington, DC.
- Key EHE Strategies. HIV.gov. Updated July 1, 2022. Accessed November 10, 2022. https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/key-strategies.
- About Ending the HIV Epidemic in the U.S.: Overview. HIV.gov. Updated July 1, 2022. Accessed August 23, 2022. https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview.
- TEMPRANO ANRS 12136 Study Group; Danel C, Moh R, et al. A trial of early antiretrovirals and isoniazid preventive therapy in Africa. N Engl J Med. 2015;373(9):808–822. https://doi.org/10.1056/NEJMoa1507198. Epub 2015 Jul 20.
- Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in adults and adolescents with HIV. US Department of Health and Human Services; 2021. Accessed August 23, 2022. https://clinicalinfo.hiv.gov/sites/default/ files/guidelines/archive/AdultandAdolescentGL_2021_08_16.pdf.
- Recommendation for rapid initiation of ART. In: Guidelines for Managing Advanced HIV
 Disease and Rapid Initiation of Antiretroviral Therapy. Geneva: World Health Organization;
 2017. Accessed August 23, 2022. https://www.ncbi.nlm.nih.gov/books/NBK475972.
- INSIGHT START Study Group; Lundgren JD, Babiker AG, et al. Initiation of antiretroviral therapy in early asymptomatic HIV infection. N Engl J Med. 2015;373(9):795–807. https://doi.org/10.1056/NEJMoa1506816.
- Pilcher CD, Ospina-Norvell C, Dasgupta A, et al. The effect of same-day observed initiation of antiretroviral therapy on HIV viral load and treatment outcomes in a US public health setting. J Acquir Immune Defic Syndr. 2017;74(1):44–51. https://doi.org/10.1097/ QAI.0000000000134. PMID: 27434707; PMCID: PMC5140684.
- Ford N, Migone C, Calmy A, et al. Benefits and risks of rapid initiation of antiretroviral therapy. AIDS. 2018;32(1):17–23. https://doi.org/10.1097/QAD.0000000000001671. PMID: 29112073: PMCID: PMC5732631.
- Halperin J, Butler I, Conner K, et al. Linkage and antiretroviral therapy within 72 hours at a federally qualified health center in New Orleans. AIDS Patient Care STDs. 2018;32(2):39–41. https://doi.org/10.1089/apc.2017.0309.
- Blank S, Borges CM, Castro MA, et al. Getting a jump on HIV: Expedited ARV treatment at NYC sexual health clinics, 2017. In: Program and Abstracts of the 2018 Conference on Retroviruses and Opportunistic Infections; March 4–7, 2018; Boston. Abstract 1108.
- Pathela P, Jamison K, Braunstein S, et al. Initiating antiretroviral treatment for newly diagnosed HIV patients in sexual health clinics greatly improves timeliness of viral suppression. AIDS. 2021;35(11):1805–1812. https://journals.lww.com/aidsonline/ Fulltext/2021/09010/initiating_antiretroviral_treatment_for_newly.10.aspx.
- Poschman K, et al. Conference on Retroviruses and Opportunistic Infections (CROI) 2019. Seattle, WA. Abstract 903.
- Rosen S, Maskew M, Fox MP, et al. Initiating antiretroviral therapy for HIV at a patient's first clinic visit: The RapIT randomized controlled trial. PLOS Medicine. 2016;13(5):e1002015. https://doi.org/10.1371/journal.pmed.1002015.
- Koenig SP, Dorvil N, Devieux JG, et al. Same-day HIV testing with initiation of antiretroviral therapy versus standard care for persons living with HIV: A randomized unblinded trial. PLOS Medicine. 2017;14(7):e1002357. https://doi.org/10.1371/journal.pmed.1002357.

- Okoli C, Van de Velde N, Richman B, et al. Undetectable equals untransmittable (U=U): Awareness and associations with health outcomes among people living with HIV in 25 countries. Sex Transn Infect. 2021;97(1):18–26. https://doi.org/10.1136/sextrans-2020-054551.
 Epub 2020 Jul 30. PMID: 32732335; PMCID: PMC7841488.
- Undetectable = Untransmittable: Public Health and HIV Viral Load Suppression UNAIDS; 2018. https://www.aidsdatahub.org/sites/default/files/resource/unaids-undetectable-untransmittable-public-health-hiv-viral-load-suppression.pdf. Accessed August 23, 2022.
- Benson C, Emond B, Romdhani H, et al. Long-term benefits of rapid antiretroviral therapy initiation in reducing medical and overall health care costs among Medicaid-covered patients with human immunodeficiency virus. J Manag Care Spec Pharm. 2020;26(2):117–128. https://doi.org/10.18553/jmcp.2019.19174. Epub 2019 Nov 20. PMID: 31747357.
- 19. Benson C, et al. HIV Drug Therapy 2018. Glasgow, UK. Abstract 284.
- Sullivan PS, Woodyatt C, Koski C, et al. A data visualization and dissemination resource to support HIV prevention and care at the local level: Analysis and uses of the AIDSVu public data resource. J Med Internet Res. 2020;22(10):e23173. https://doi.org/10.2196/23173. PMID: 33095177; PMCID: PMC7654504.
- Amico KR, Miller J, Schairer C, et al. I wanted it as soon as possible: A qualitative exploration
 of reactions to access to same-day ART start among participants in San Diego's ART-NET
 project. AIDS Care. 2020;32(9):1191–1197. https://doi.org/10.1080/09540121.2019.1687831.
 Epub 2019 Nov 12. PMID: 31713432; PMCID: PMC7214217.
- Michienzi SM, Barrios M, Badowski ME. Evidence regarding rapid initiation of antiretroviral therapy in patients living with HIV. Curr Infect Dis Rep. 2021;23(5):7. https://doi.org/10.1007/ s11908-021-00750-5. Epub 2021 Apr 2. PMID: 33824625; PMCID: PMC8016613.
- Jones J, Hsieh YH, Chander G, et al. Project RHAE: A pilot study of Rapid ART start and restart in Baltimore City. CROI 2019. Seattle, WA. Abstract 514. Accessed August 23, 2022. https://www.croiconference.org/abstract/project-rhae-pilot-study-rapid-art-start-and-restart-baltimore-city
- Colasanti J, et al. Implementation of a rapid entry program decreases time to viral suppression among vulnerable persons living with HIV in the Southern United States. Open Forum Infect Dis. 2018 Jun 28;5(6):ofy104. https://doi.org/10.1093/ofid/ofy104. PMID: 29992172: PMCID: PMC6022569.
- Bacon OM, Coffey SC, Hsu L, et al. Development of a citywide rapid antiretroviral therapy initiative in San Francisco. Am J Prev Med. 2021;61(5):547–554. https://doi.org/10.1016/j. amepre.2021.06.001.
- Bacon O, Chin J, Hsu L, et al. The RAPID ART Program Initiative for HIV Diagnoses (RAPID) in San Francisco. CROI 2018. Boston, MA. Oral 93. Accessed August 23, 2022. https://gettingtozerosf.org/gtz-san-francisco-at-croi-2018-oral-abstracts.
- Brotherton A, et al. Pharmacist-Driven Rapid ART Reduces Time to Virologic Suppression in Rhode Island. CROI 2020. Boston, MA. Abstract 498.
- Coffey S, Bacchetti P, Sachdev D, et al. RAPID ART: High virologic suppression rates with immediate ART initiation in a vulnerable urban clinic population. AIDS. 2019;33(5):825-832. https://doi.org/10.1097/QAD.000000000002124.
- Bacon O, Chin J, Cohen SE, et al. Decreased time from human immunodeficiency virus diagnosis to care, antiretroviral therapy initiation, and virologic suppression during the citywide RAPID Initiative in San Francisco. Clin Infect Dis. Jul 1 2021;73(1):e122–e128. https://doi.org/10.1093/cid/ciaa620. PMID: 32449916; PMCID: PMC8561247.