

# Pandemi 90-90-90 Hedefini Nasıl Etkiledi? Gelecek Nasıl Planlanmalı?

## Uyum

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Mikrobiyoloji  
Şişli Hamidiye Etfal SUAM



# Antiretroviral Tedavi ve Uyum

Kür yok

Tedavi  
ömür boyu

Tablet sayısı

Diyet  
ilaç  
etkileşimleri

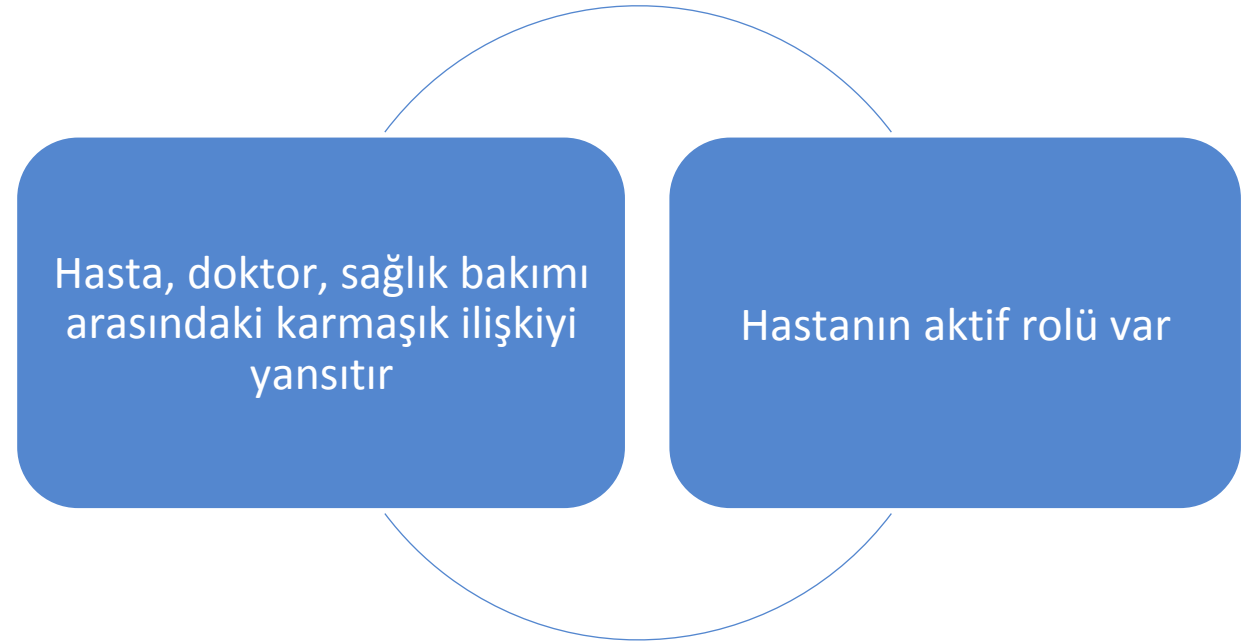
Yan etki  
Kısa ve uzun  
dönem

# Uyum

## Compliance (Uyum)

Geleneksel olarak hastanın ilaçlarını alabilmesi

## Adherence (Bağlılık)



# Tedaviye baęlılık

## **DSÖ tanımı**

Kişinin saęlık bakım tavsiyeleri altında

İlaçların alımı

Diyetin takibi

Yaşam stili deęişiklikleri davranışlarının ölçüsüdür

## **Çok boyutlu**

Katılımcının davranışları

İstenmeyen etki profili

Hastanın halsizlięi

Günlük yaşam rutinine tedavinin yerleşmesi

# **HIV ve Tedavi Baęlılıęı**

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**Virusa maruz kalma süresinde optimum ilaç düzeyini elde etmek için  
öngörülen ilaçların alınması**

# Uyum

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- Viral supresyon
- Direnç oranınınında azalma
- Sağkalımda artış
- Yaşam kalitesinin iyileşmesi

ile bağlantılıdır

1. Martin M et al.: Relationship between adherence level, type of the antiretroviral regimen, and plasma HIV type 1 RNA viral load: A prospective cohort study. *AIDS Res Hum Retroviruses* 2008;24:1263–1268.
2. Sethi AK et al. Association between adherence to antiretroviral therapy and human immunodeficiency virus drug resistance. *Clin Infect Dis* 2003;37:1112–1118.
3. Lima VD et al.: The combined effect of modern highly active antiretroviral therapy regimens and adherence on mortality over time. *J Acquir Immune Defic Synd*

# Uyum Ölçümü

Altın standart yok

Viral supresyon en gerçekçi göstergelerden biri

ART başarısı için %95 ve üzeri bağlılık



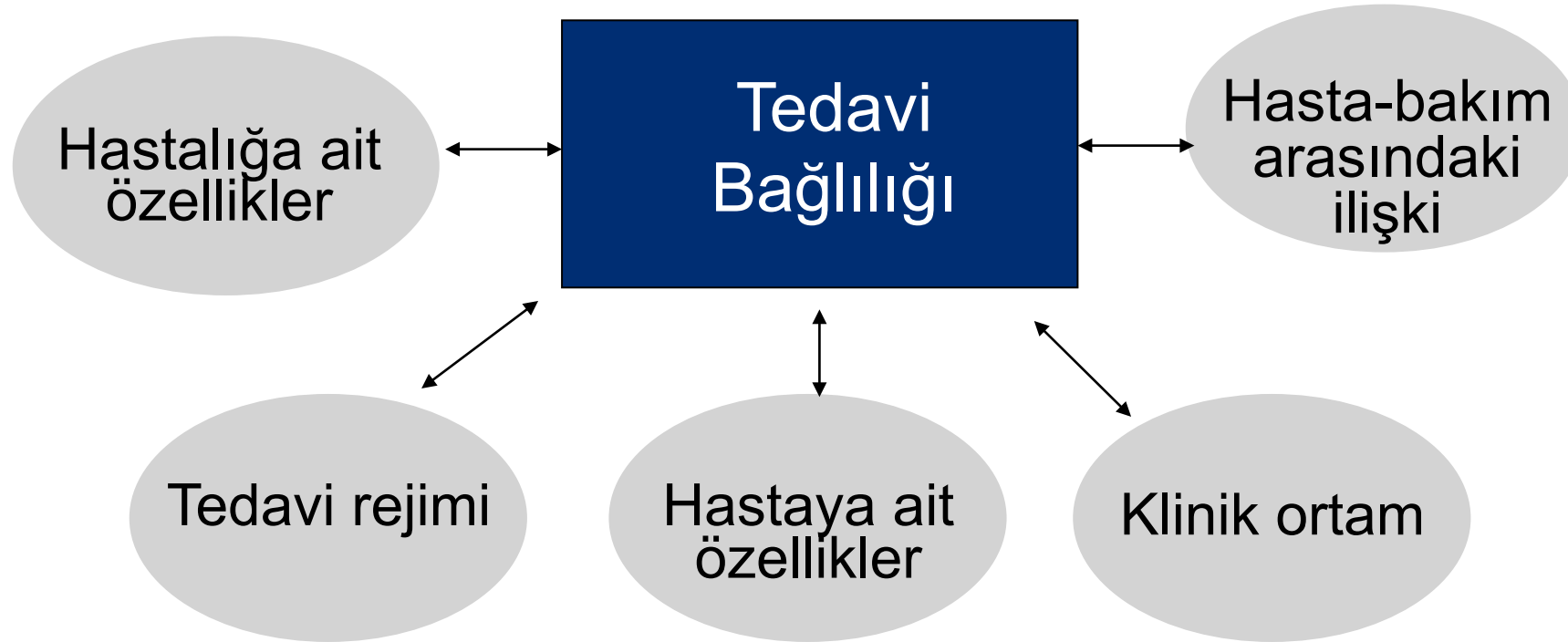
# Tedavi Baęlılıęı Nasıl ÖLçölür

- Hasta geri bildirim
- Tablet sayısı
- Eczane kaydı
- Laboratuvar belirteçleri
- Elektronik alet
- İlaç düzeyi ölçümü

1. Shi L et al. Correlation between adherence rates measured by MEMS and self-reported questionnaires: A meta-analysis. *Health Qual Life Outcomes* 2010;8:99.
2. McMahon JH et al. Pharmacy adherence measures to assess adherence to antiretroviral therapy: Review of the literature and implications for treatment monitoring. *Clin Infect Dis* 2011;52:493–506



# Tedavi Bađlılıđını Etkileyen Faktörler

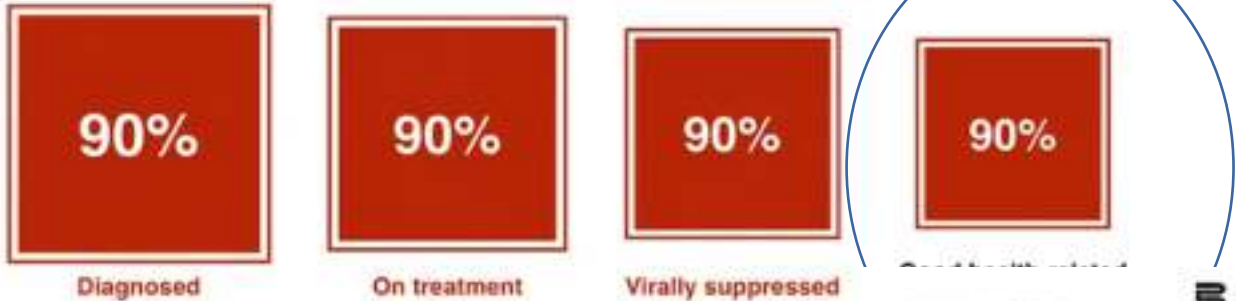


# HIV Bakım Devamlılığı



Komorbidite yönetimi  
Psikososyal iyilik hali

Fig. 1



\*Adapted from: UNAIDS. 90-90-90: an ambitious treatment target to help end the AIDS epidemic. 2014. default/files/media\_asset/90-90-90\_en\_0.pdf. Accessed on 25 April 2016

The 'fourth 90': proposed revision to the UNAIDS 90-90-90

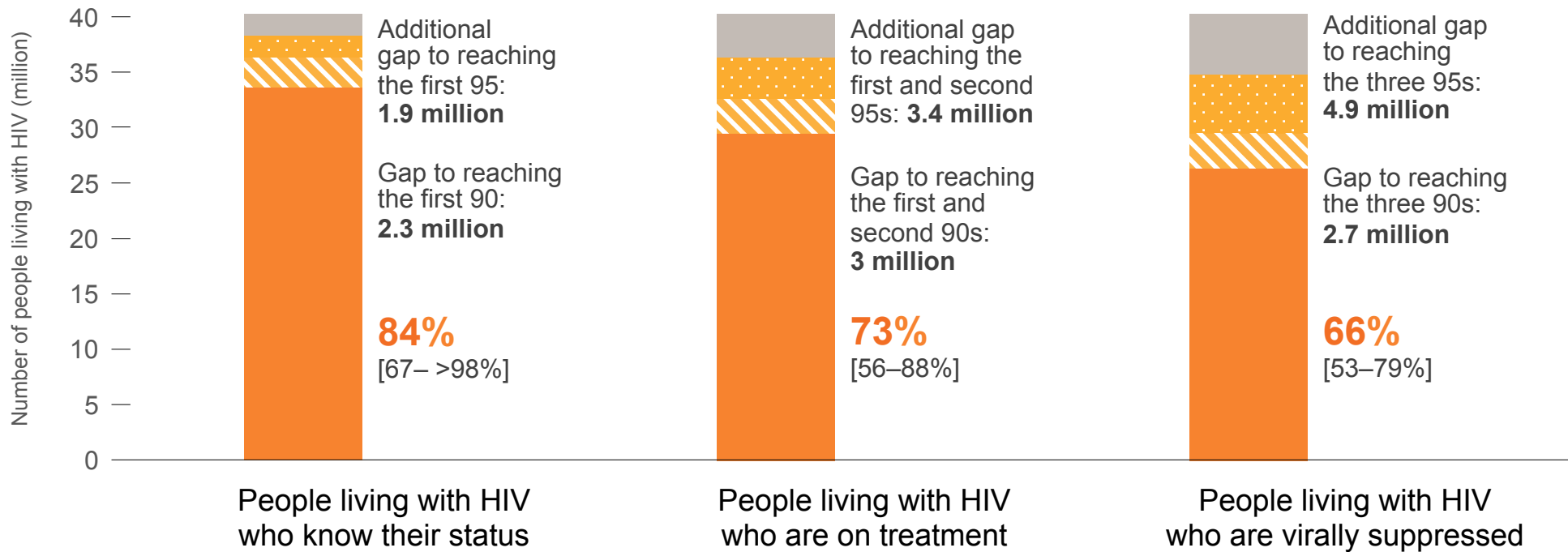
**"Moving Fourth": A Vision Toward Achieving Healthy Living with HIV Beyond Viral Suppression**

Discussed: *Shantia*<sup>1</sup>, *John A. Simpson*<sup>2</sup>, *Thomas Baran*<sup>3</sup>, *Mark Gerson*<sup>4</sup>, *Julian Campisi*<sup>5</sup>, *Eugene Sautter*<sup>6</sup>, *Julia Van Den Brant*<sup>7</sup> and *Christian Engel*<sup>8</sup>

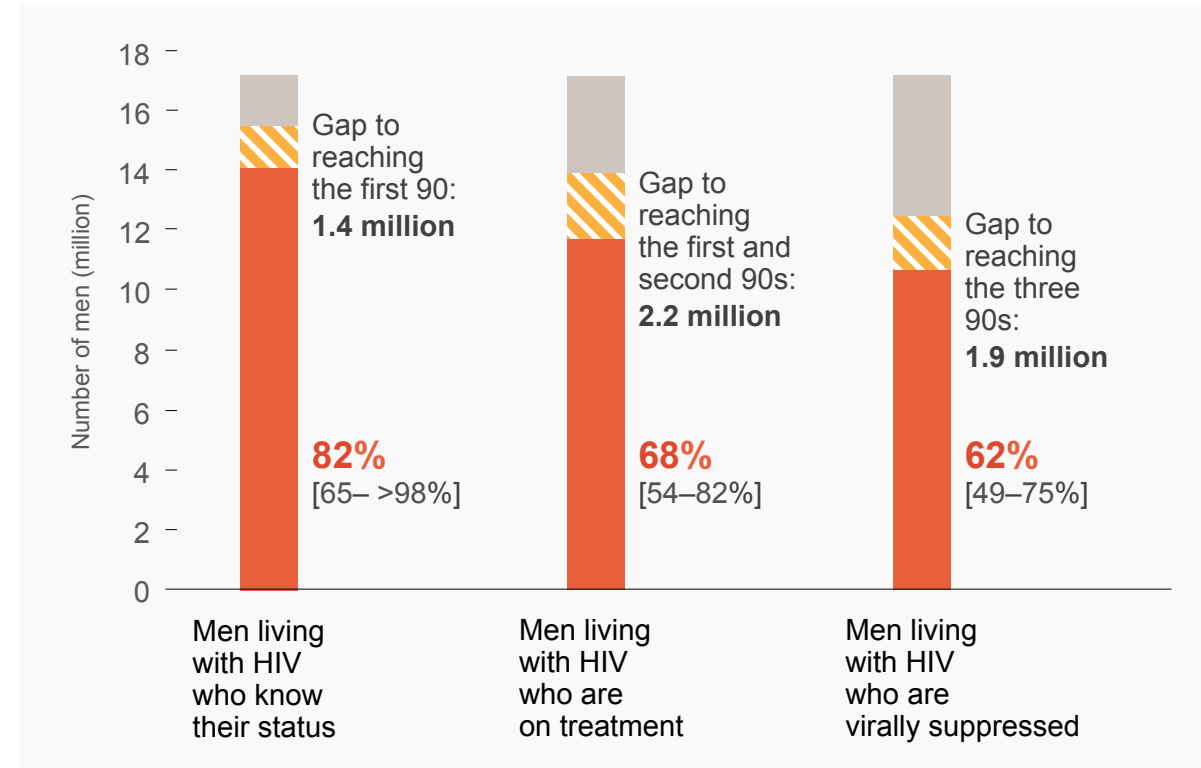
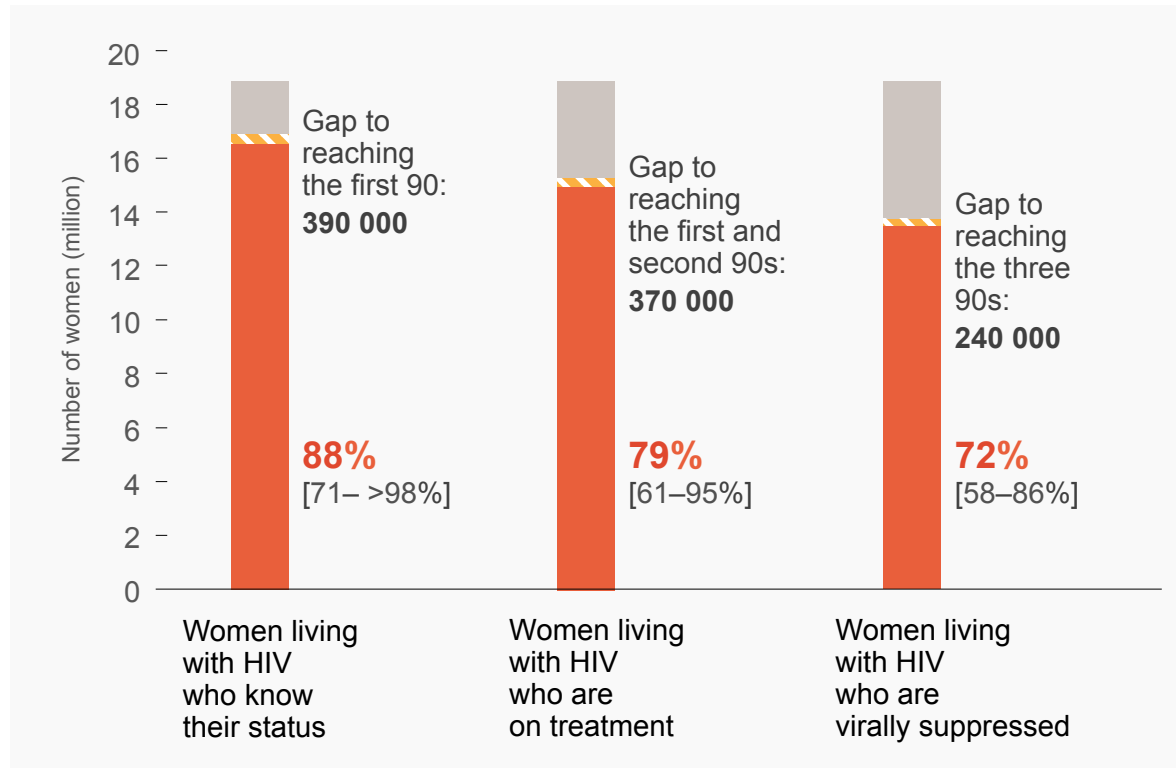
**Abstract**

Since HIV has moved from being a fatal illness to a chronic condition, this change has challenged existing models of health, as increasing numbers of people living with HIV (PLWH) manage their lives beyond viral suppression. This review presents the challenges facing patients and health-care providers managing HIV in Europe today. We highlight the challenges that the existing framework to HIV brings, including managing aging and more diverse populations of PLWH that require a shift from managing disease to managing health and may lead to unintended by-effects/secondary issues in the long term. We introduce the concept of "health goals for me," an individualized approach to the management of HIV and use this as the basis for a proposed framework for assessing health-related quality of life for PLWH. Our framework comprises a combination cycle of "ask and measure," "reflect and discuss," and "intentional," based on collaborative between the health-care professional and patient. For improved long-term management of PLWH we propose that the framework should become an integral part of HIV care in the future and that the "health goals for me" concept can serve as a tool to facilitate healthy living for PLWH beyond viral suppression. (2016) 16:1043-1054. <https://doi.org/10.1186/s12916-016-0740-7>

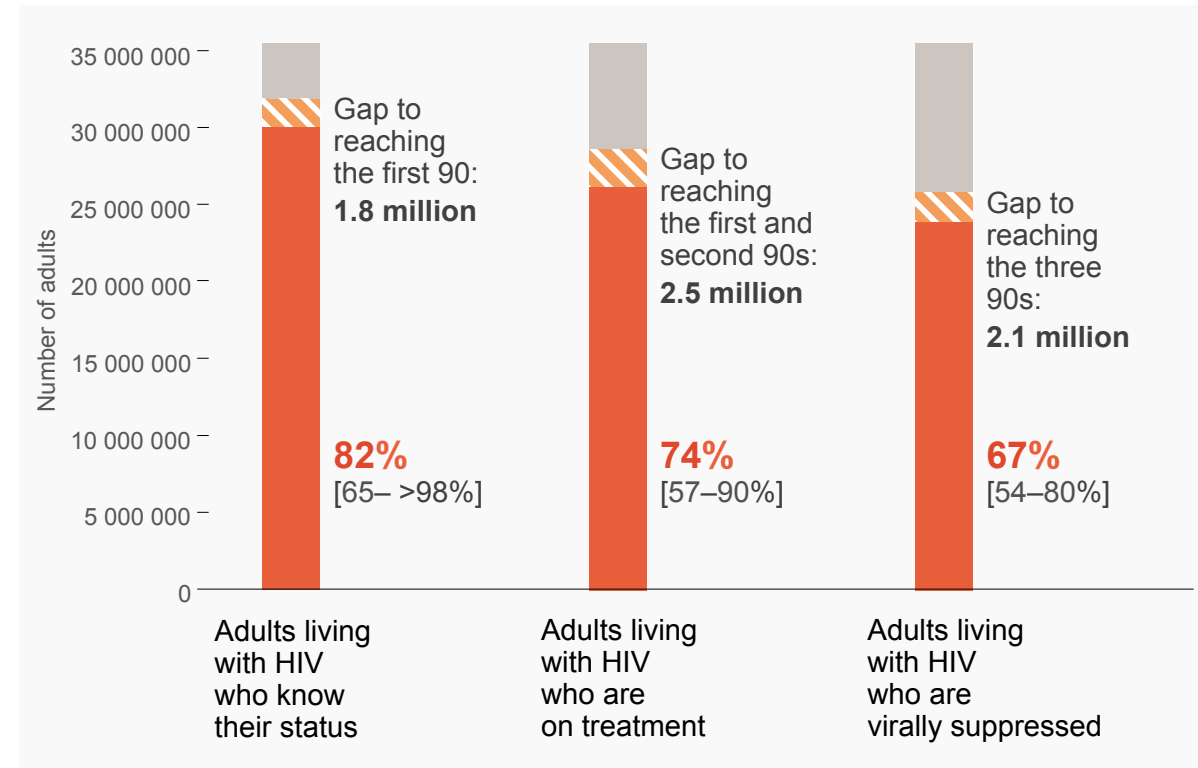
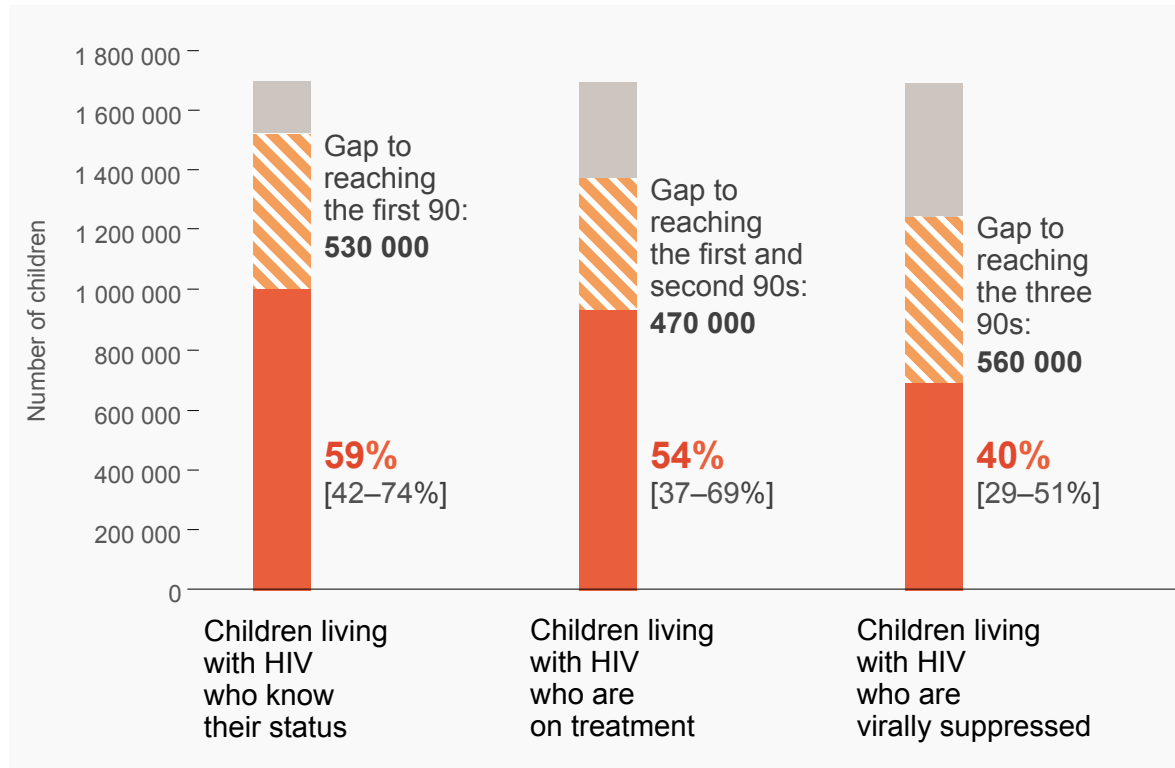
# HIV Test ve Tedavi



# HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), global, 2020



# HIV testing and treatment cascade, children (aged 0–14 years) compared to adults (aged 15 years and older), global, 2020



# HIV Tedavi Hedefine Ulaşan Ülkeler, 2020

	90–90–90 value (all)	90–90–90 value (children aged 0–14 years)	90–90–90 value (women aged 15+ years)	90–90–90 value (men aged 15+ years)	Viral suppression level (all)
Eswatini	93–98–96	78–98–91	78–98–93	94–98–94	97
Switzerland <sup>a</sup>	93–98–96	54–98–89	96–98–96	93–98–96	89
Rwanda	93–98–96	62–98–94	>98–98–81	90–97–98	86
Qatar <sup>a</sup>	91–95–98	62–98–94	94.5–98–98	88–87–97	85
Botswana	90–97–96	63–98–78	96–98–92	88–97–89	85
Slovenia	91–98–90	73–98–73	94–94.9–95	90–92–94	85
Uganda	91–94–94	72–98–72	96–98–91	92–98–88	82
Malawi	93–98–89	84–98–86	>98–92–94	91–83–94	81
Zimbabwe	96–89–94	81–92–80	92–98–93	86–94–89	80
Kenya	89.9–98–91	60–98–88	82–98–98	86–98–97	81
Namibia	84–98–97	83–98–92	94.6–92–97	93–79–97	80
Cambodia	94–87–97	89–98–89.7	31–98–70	85–96–89	79
Lesotho	89–98–89.7				79
Burundi					79
Uruguay					79
Norway					79
Norway	94–84–97	>98–76–87	92–86–97	96–81–97	77
Thailand	86–95–93	58–98–84	89–94–94	84–95–93	76
Zambia	84–88–98		80–92–98	84–87–98	73
Croatia					

- Reached the 90–90–90 targets
- Reached only the 73% viral load suppression target
- Not reached the 90–90–90 target
- Data not available

<sup>a</sup> Data are not available on testing and treatment coverage for children. However, because children living with HIV represent less than 1% of the total people living with HIV, adult data were used.

Note: In the 2020 Global AIDS Update, Seizing the moment: tackling entrenched inequalities to end epidemics, Australia, Namibia and the Netherlands were among the countries reaching the 90–90–90 targets in 2019. Based on the 2020 data, however, Namibia has fallen short of the targets, mainly because of children falling behind. Australia and the Netherlands did not have full estimates on the cascade this year. In the same report, Ireland and Spain were among the countries reaching their viral suppression target at all population levels. This year, however, there was no viral suppression data available for either country.

Note: The UNAIDS models estimated that in the region of western and central Europe and North America, more than 73% of people living with HIV had suppressed viral loads in 2020.

Note: Countries have been assessed as reaching the 90–90–90 targets if coverage is  $\geq 90.0$ . Thus coverage of 89.9 is not considered as reaching the target. Please see the Annex on Methods for a description of how regional estimates of the testing and treatment targets are calculated.

Note: In Eswatini, viral load suppression among all people living with HIV is estimated to be slightly higher than the proportion virally suppressed among people on treatment due to the uncertainty in the number of people on treatment and the number of people living with HIV.

# Bakımı Etkileyen Faktörler

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HIV testi ilişkili olumsuz deneyim

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Açığa çıkma korkusu, ayrımcılık, damgalanma

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Takip / sevk hizmetlerindeki boşluklar

---

Motivasyon eksikliği, inkar

---

Sağlık sistemine güvensizlik

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Yetersiz sağlayıcı iletişimi

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Ruh sağlığı ihtiyaçları

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Diğer sosyal eşitsizlikler

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Destek sistemi eksikliği

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Sağlık hizmeti konusunda olumsuz deneyim

1.Holtzman. Drugs. 2015;75:445.

2. Mugavero. Clin Infect Dis. 2011;52:S238

3.Thompson M. 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*, 2020.:1-33.



# Bakımı Etkileyen Faktörler

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Genç yaş

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İleri yaş

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Eğitim düzeyi düşük kişiler

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Stres

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Alkol ya da madde kullanımı

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Mental hastalık, özellikle depresyon

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İstenmeyen etki

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Mali: sağlık sigortasının olmaması

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Tedavi yorgunluğu

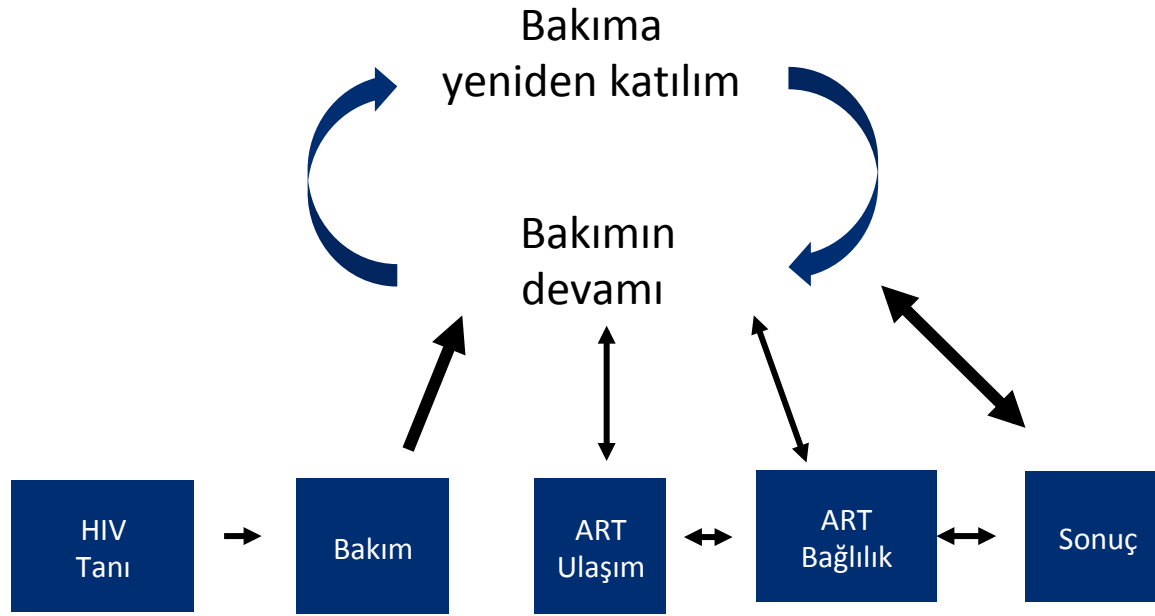
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Rejim karmaşıklığı, tablet sayısı

1.Holtzman. Drugs. 2015;75:445.

2. Mugavero. Clin Infect Dis. 2011;52:S238

3.Thompson M. 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*, 2020.:1-33.



# UNAIDS Global AIDS Güncellemesi

## Anı yakalamak Salgınları sona erdirmek için yerleşmiş eşitsizliklerle mücadele

COVID-19 eşitsizlikleri artırır

COVID-19 salgını her yerde insanları etkiliyor

Özellikle geçim kaynakları

Bu etkiyi daha şiddetli yaşayanlar

- Sosyoekonomik düzeyi düşük kişiler
- Altta yatan hastalığı olan kişiler
- Ötekileştirilmiş kişiler

## SEIZING THE MOMENT

Tackling entrenched inequalities to end epidemics



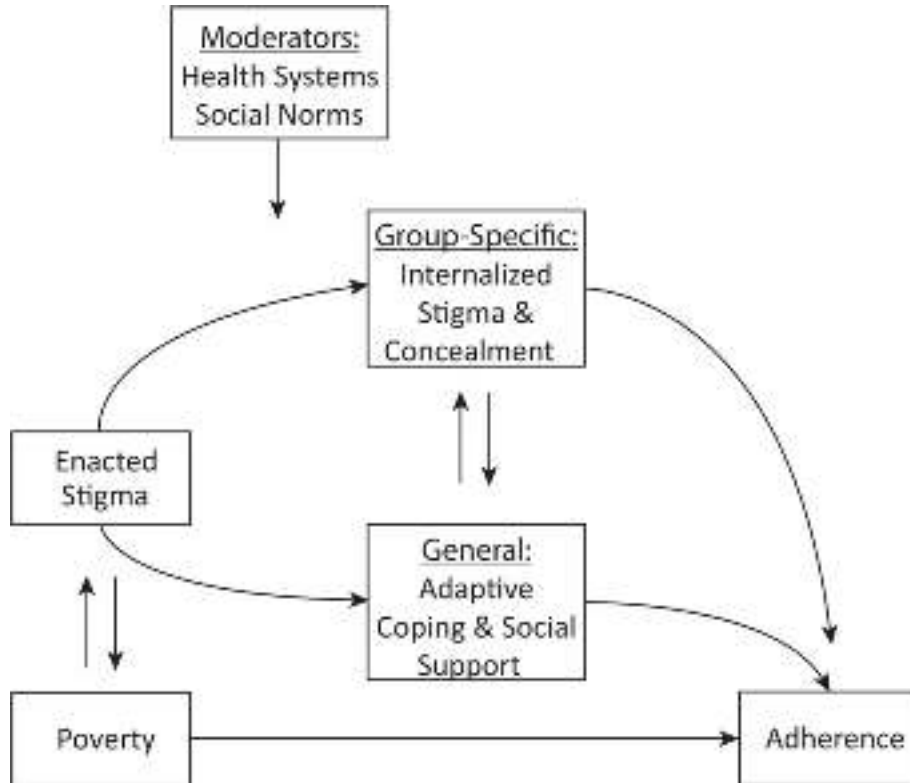
# Pandeminin gizli kurbanları Hasta veya ölüyor Ancak virüsten değil

Koronavirüs sağlık sistemini bunaltırken  
başka hastalıkları olan insanlar tedaviye ulaşmak için uğraşiyor

COVID-19'un HIV üzerindeki etkisi  
ART ve PrEP raydan çıkması bekleniyor  
Yalnızlığı arttırmak  
Madde kullanımını artışı  
Depresyon

HIV ile ilgili damgalanma, katılımcıların ART uyumunu tehlikeye atmaktadır.

ART uyumunu iyileştirmede maksimum etkinliğe sahip olmak için damgalamayı azaltmaya yönelik müdahaleler, birden fazla etki düzeyini hedeflemelidir.



Research article

### Impact of HIV-related stigma on treatment adherence: systematic review and meta-synthesis

Ingrid T Katz<sup>1,2,3</sup>, Assemarie E Rye<sup>4</sup>, Afachukwu G Onuegbu<sup>2</sup>, Christina Psaros<sup>3,5</sup>, Sheri D Weiser<sup>7</sup>, David R Bangsberg<sup>1,3,5,6</sup> and Alexander C Tsai<sup>1,2,3,4</sup>

\*Corresponding author: Alexander C Tsai, Center for Global Health, Room 1529ES, Massachusetts General Hospital, 300 Cambridge Street, 20th floor, Boston, MA 02114, USA. Tel: +1-617-726-1130. Fax: +1-617-726-1637. [tsai@partners.org](mailto:tsai@partners.org)

**Abstract**

**Introduction:** Adherence to HIV antiretroviral therapy (ART) is a critical determinant of HIV-1 RNA viral suppression and health outcomes. It is generally accepted that HIV-related stigma is correlated with factors that may undermine ART adherence, but its relationship with ART adherence itself is not well established. We therefore undertook this review to systematically assess the relationship between HIV-related stigma and ART adherence.

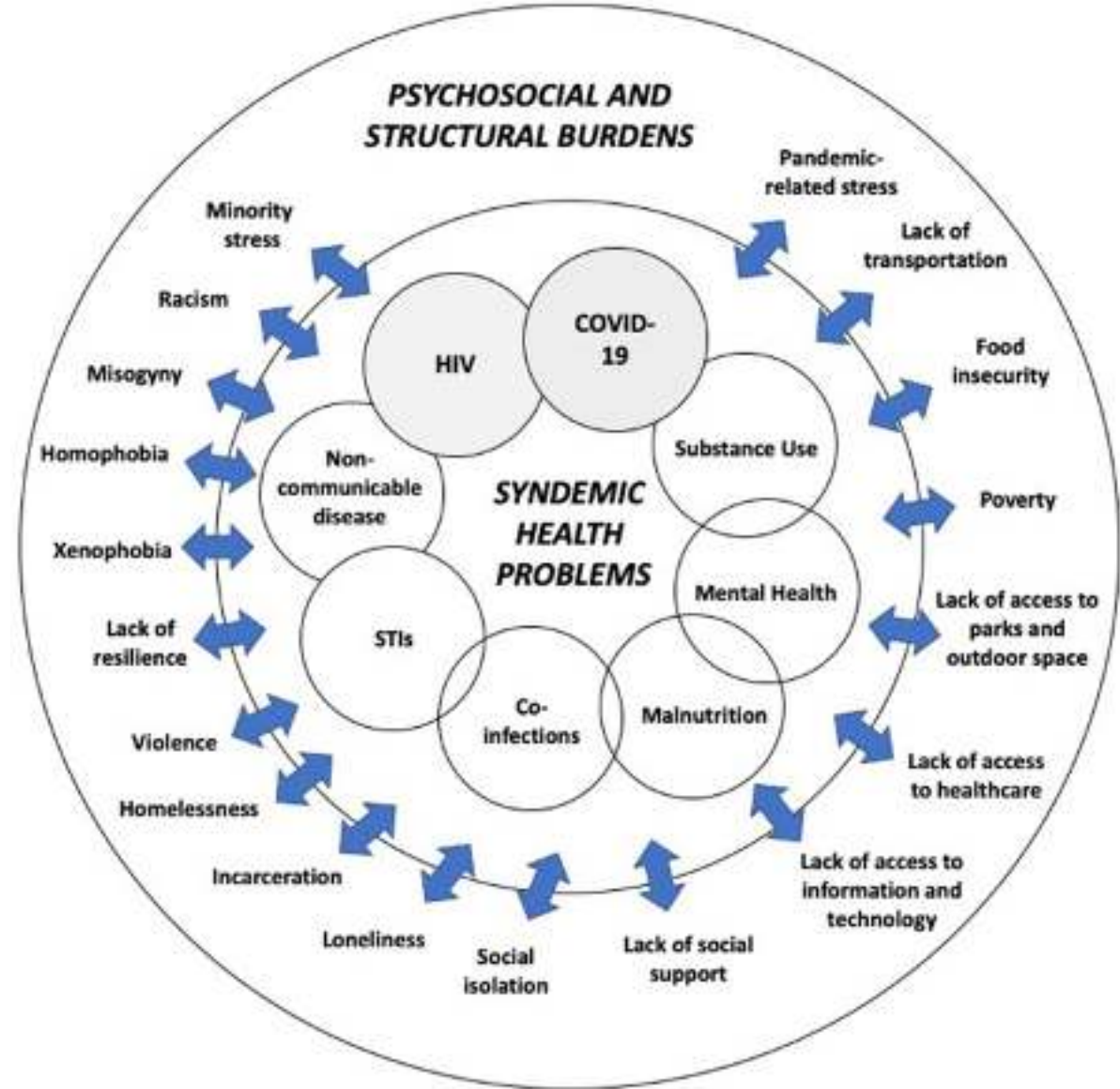
**Methods:** We searched nine electronic databases for published and unpublished literature, with no language restrictions. First we screened the titles and abstracts for studies that potentially contained data on ART adherence. Then we reviewed the full text of these studies to identify articles that reported data on the relationship between ART adherence and either HIV-related stigma or serostatus disclosure. We used the method of meta-synthesis to summarise the findings from the qualitative studies.

**Results:** Our search protocol yielded 14,854 initial records. After eliminating duplicates and screening the titles and abstracts, we retrieved the full text of 960 journal articles, dissertations and unpublished conference abstracts for review. We included 75 studies conducted among 26,715 HIV-positive persons living in 32 countries worldwide, with less representation of work from Eastern Europe and Central Asia. Among the 34 qualitative studies, our meta-synthesis identified five distinct third-order labels through an inductive process that we categorized as themes and organized in a conceptual model spanning intrapersonal, interpersonal and structural levels. HIV-related stigma undermined ART adherence by compromising general psychological processes, such as adaptive coping and social support. We also identified psychological processes specific to HIV-positive persons driven by predominant stigmatizing attitudes and which undermined adherence, such as internalized stigma and concealment. Adaptive coping and social support were critical determinants of participants' ability to overcome the structural and economic barriers associated with poverty in order to successfully adhere to ART. Among the 41 quantitative studies, 24 of 33 cross-sectional studies (71%) reported a positive finding between HIV stigma and ART non-adherence, while 6 of 7 longitudinal studies (86%) reported a null finding (Pearson's  $\chi^2 = 7.7$ ,  $p = 0.005$ ).

**Conclusions:** We found that HIV-related stigma compromised participants' abilities to successfully adhere to ART. Interventions to reduce stigma should target multiple levels of influence (intrapersonal, interpersonal and structural) in order to have maximum effectiveness on improving ART adherence.

# COVID-19 ve HIV ile yaşayan kişilerde psikososyal koşullar

- Akıl sağlığı
- Madde kullanımı
- Yoksulluk
- Yalnızlık
- Tıbbi güvensizlik
- Gıda güvensizliği
- Konut güvensizliği
- Irkçılık, homofobi
- .... COVID-19'un halk sağlığı tepkisine göre, HIV ile yaşayan kişileri orantısız olarak etkilemesi muhtemel

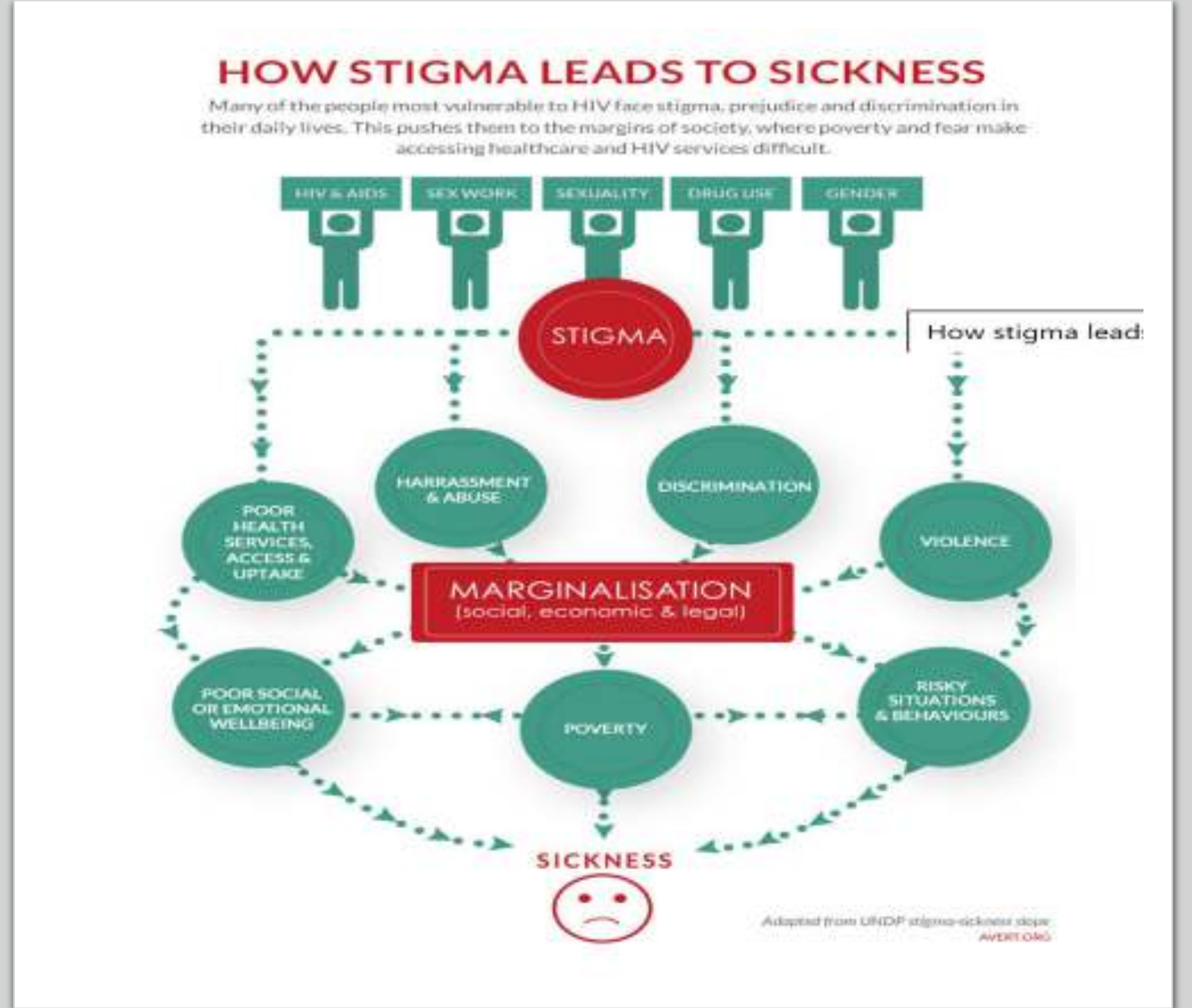


- COVID-19'a eşlik eden temel zorluklar: korku, söylentiler ve damgalama
- Damgalanma tarihi: 40 yıllık HIV deneyimi
- Damgalama: Normal olan kişilerden diğerlerini ayırıp etiketleme
- Karışık süreç: Diğer damgalama ile etkileşir
- Salgın: yaşanan zorlukların hikayesi, insanların yaşamı karmaşık, dolu
- Damgalanma .....dayanışma



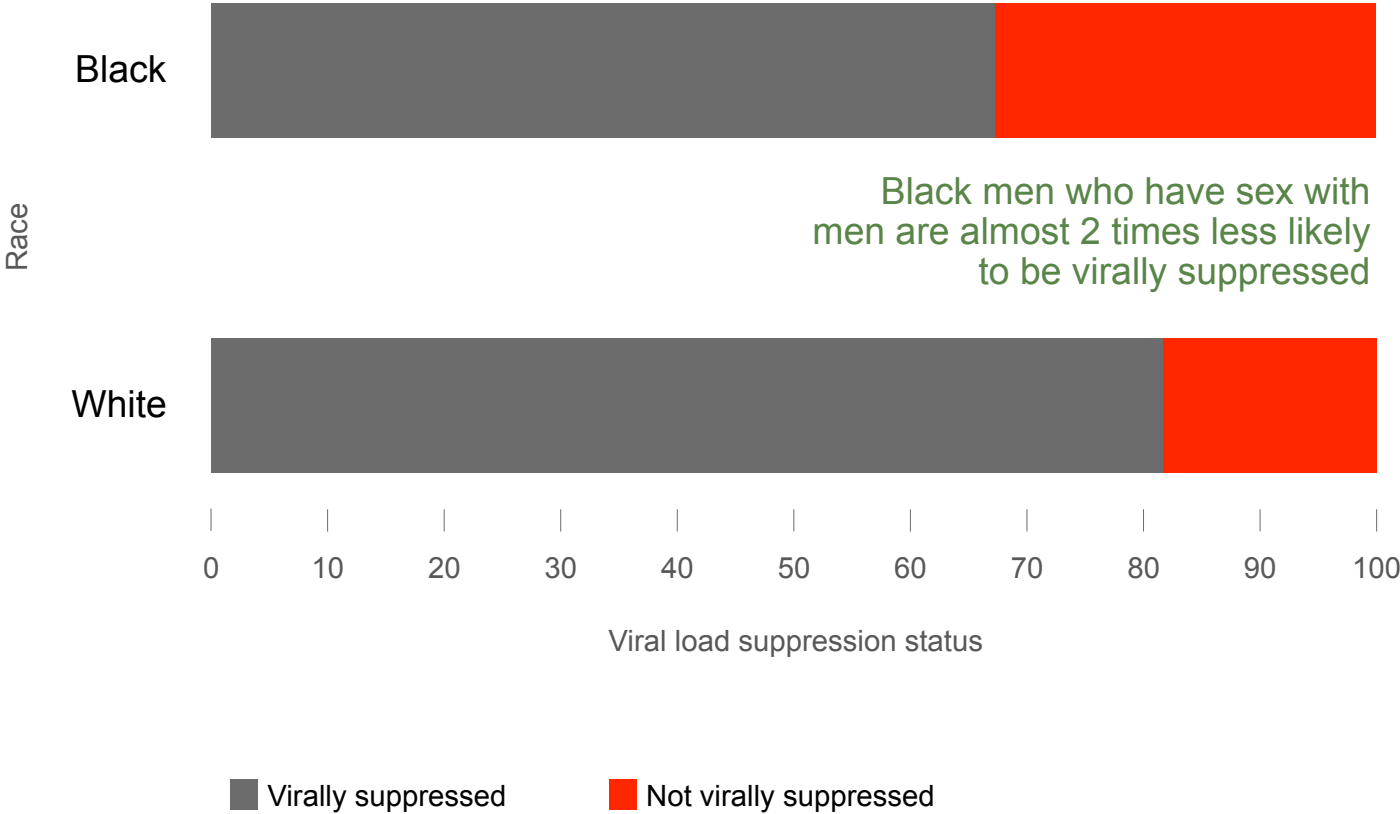
## HIV ile Yaşayan Kişilerde Psikososyal Koşullar ve COVID-19

- HIV ile yaşayan kişiler için sağlıklı kaliteli yaşamın önündeki en büyük engel stigma ve ayrımcılık





# Virolojik supresyon, siyahi ırk MSM kişilerde daha az

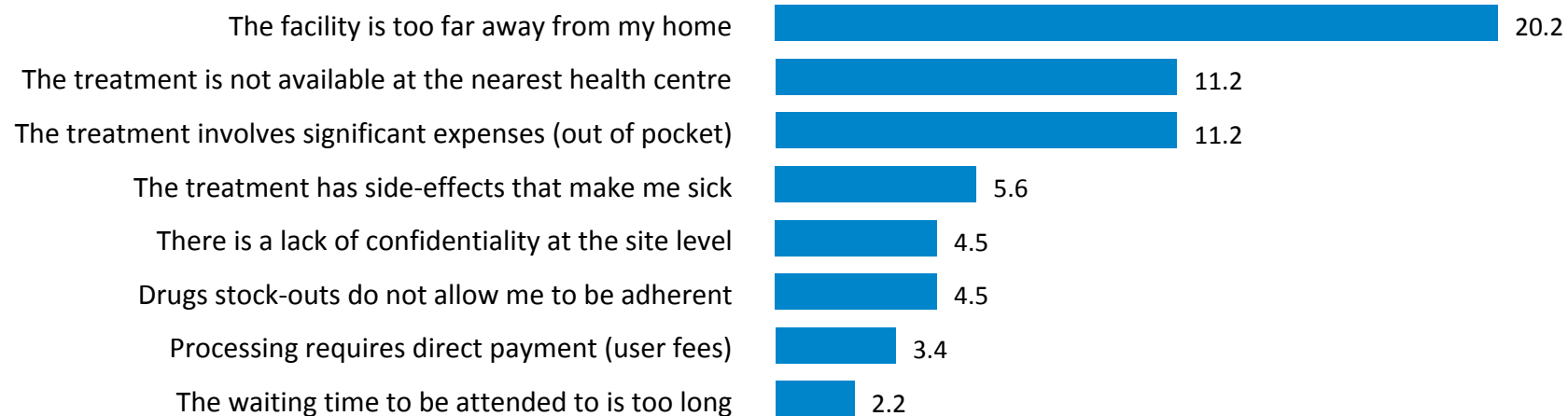


Sullivan PS et al. Understanding disparities in viral suppression among Black MSM living with HIV in Atlanta Georgia J Int AIDS Soc. 2021;24(4)

# En önemli engel sağlık hizmeti ve tedaviye ulaşım

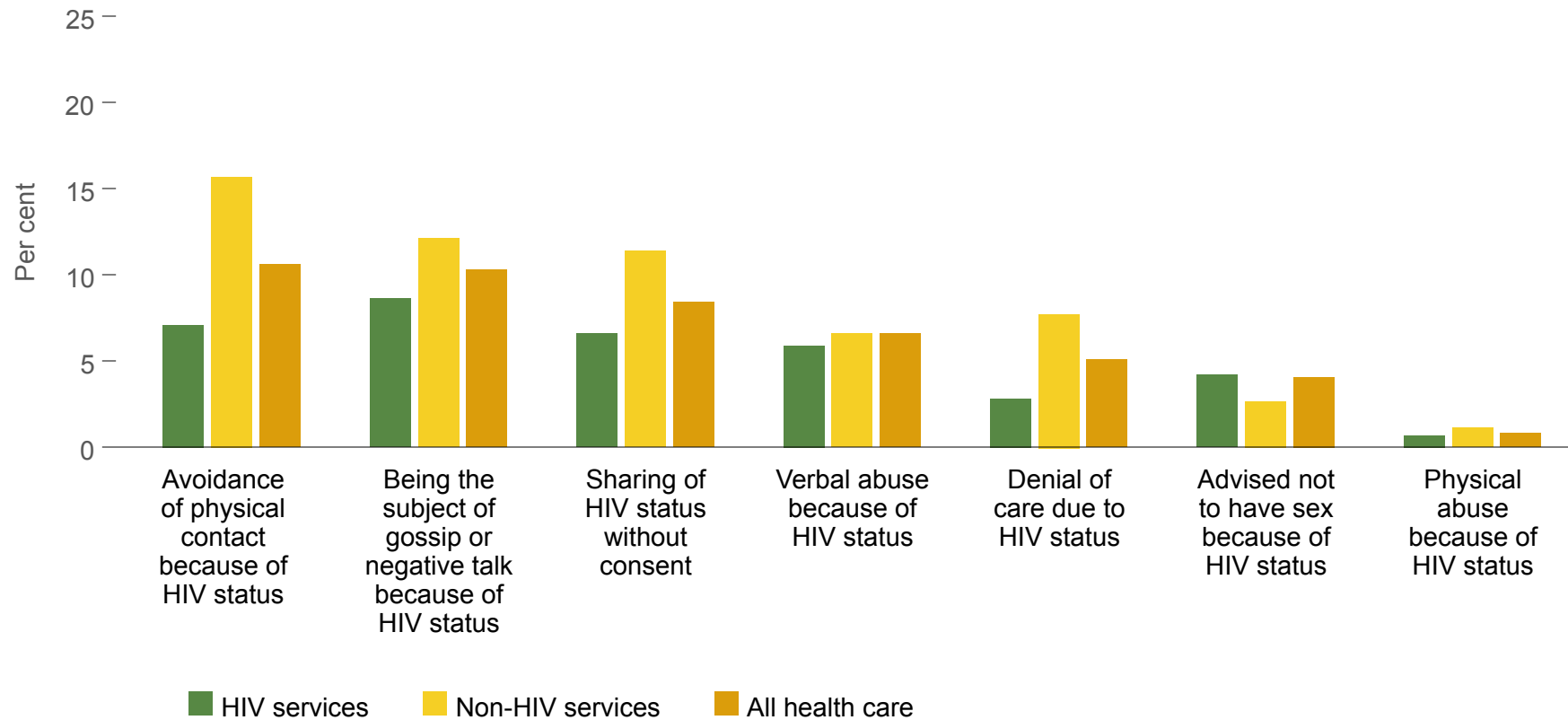
Barriers to HIV treatment services, selected states in Nigeria, September–December 2020

Percentage of respondents reporting barrier to HIV treatment services (%)



Note: Number of respondents to survey = 89.

# Sağlık hizmeti ortamlarında damgalanma ve ayrımcılık yaşadıklarını bildiren HIV ile yaşayan kişilerin yüzdesi



# Antivirallerin Topluma Dağıtımı

Progress towards multimonth dispensing and community distribution of antiretrovirals in Latin America and the Caribbean

Country	1. Does it have a MMD policy?	2. Dispensing frequency according to MMD policy	3. Is the MMD policy a consequence of COVID-19?	4. Is the strategy widely implemented?	5. Are there regulations for the community distribution of ARVs?	6. Are regulations for community ARV distribution implemented at the national level?
Argentina	Yes	3 months	Yes	No	No	No
Belize	Yes	2 months	Yes	No	No data	No data
Bolivia (Plurinational State of)	Yes	2 months	Yes	Yes	No	No
Brazil	Yes	3 months	No	Yes	No	No
Chile	Yes	3 months	Yes	Yes	No	No
Colombia	Yes	3 months	Yes	No data	No	No
Costa Rica	No	1 month	No data	No data	No data	No data
Cuba	Yes	2 months	No	Yes	Yes	Yes
Dominican Republic	Yes	6 months	Yes	Yes	Yes	No
Ecuador	Yes	2 months	Yes	Yes	No	No
El Salvador	Yes	2 months	Yes	Yes	Yes	No
Guatemala	Yes	3–6 months	Yes	Yes	Yes	Partly
Guyana	Yes	2 months	No	No	No	No
Haiti	Yes	3 months	No	Yes	Yes	Yes
Honduras	Yes	2 months	Yes	No	No	No
Jamaica	No	1 month	No data	No	No	No
Mexico	Yes	3 months	Yes	No	No	No
Nicaragua	No	1 month	No data	No data	No data	No data
Panama	Yes	3 months	Yes	Yes	No	No
Paraguay	Yes	3 months	No	Yes	Yes	No
Peru	Yes	3 months	No	Yes	No	No
Suriname	Yes	2 months	No	No	No	No
Uruguay	Yes	3 months	Yes	Yes	No	No
Venezuela (Bolivarian Republic of)	Yes	3 months	No	No	No	No

Note: MMD = multimonth dispensing; ARV = antiretroviral medications.

Data from UNAIDS and PAHO/WHO (Status of HIV/STI services in the Context of COVID-19 survey)

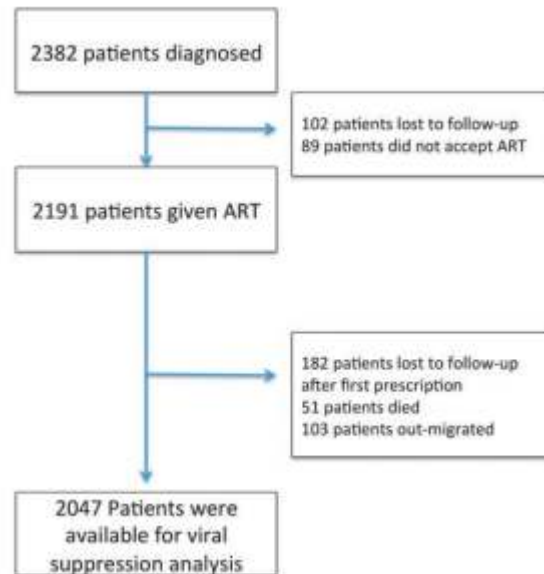
# HIV care in Istanbul, Turkey: How far is it from the UNAIDS 90–90–90 targets?

International Journal of STD & AIDS  
0(0) 1–5  
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DOI: 10.1177/0956462419866341  
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Bilgul Mete<sup>1</sup>, Alper Gunduz<sup>2</sup>, Sibel Bolukcu<sup>3</sup>,  
Aliha M Koç<sup>3</sup>,  
Tabak<sup>1</sup>

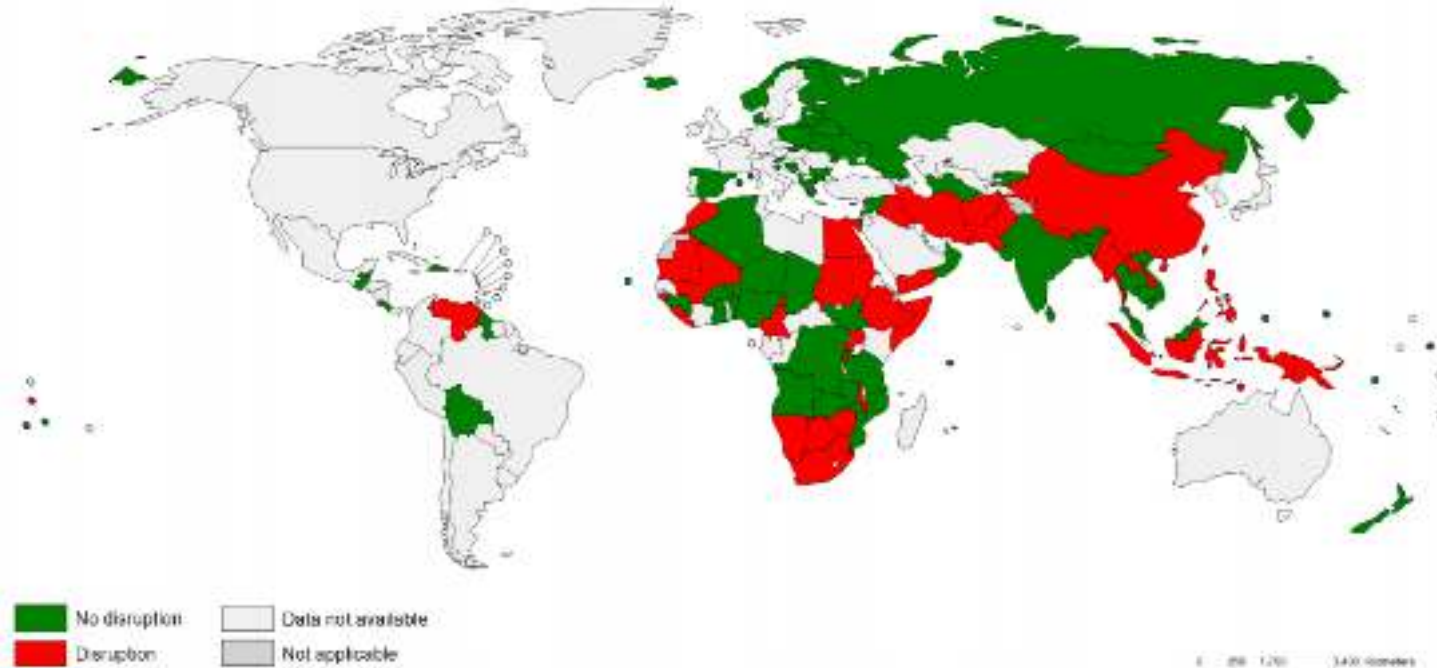
2382 hasta  
2082 erkek  
%72-74 tanı  
%92 ART alan  
%70.2 viral supresyon

...tion is low but it is steadily increasing in Turkey. In the management with the proposed 90–90–90 targets in a 2382 patients (2082 male, 300 female, mean age was ... and HIV-RNA level was 576,235 copies/ml. According to ... eases Control Software, 72 and 74% of all HIV patients ... (not target). Among 2382 patients, 2191 (92%) were on ... of virally suppressing those on treatment was achieved ... both the fraction of those living with undiagnosed HIV and ... and should be targeted to sustain optimal HIV care. Efforts



# COVID-19 nedeni ile ART kesilmesi bildiren ülkeler, 2020

Preliminary results compiled from a survey conducted by WHO between April and June 2020 (n=127)



Source: Global HIV, Hepatitis and STIs Programmes (HSS), WHO, 2020

Disclaimer: The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

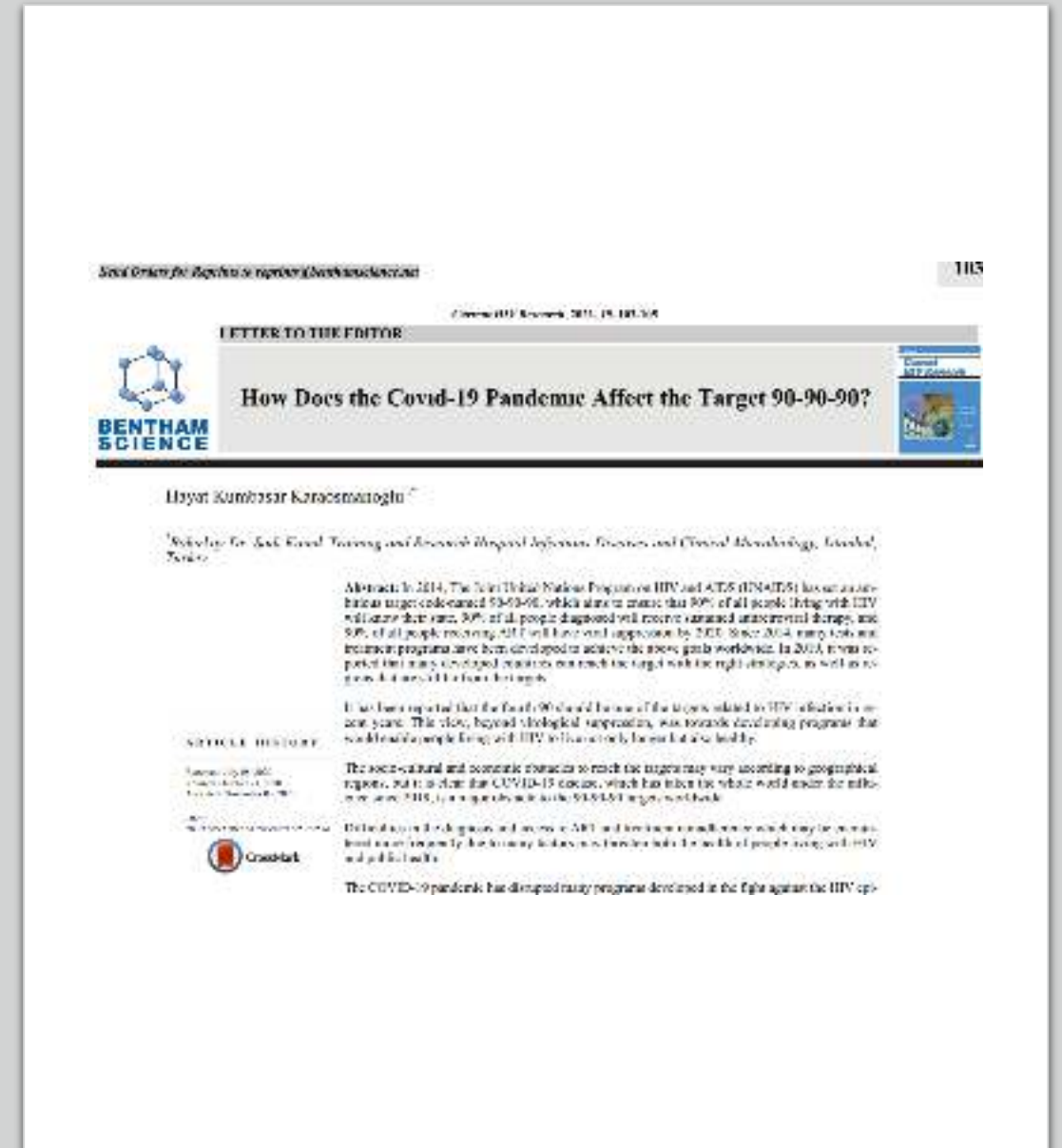


World Health Organization

- COVID-19 pandemisi Avrupa bölgesini orantısız vurdu
- Bir çok HIV kliniği çalışan ve imkanlarını paylaşmak zorunda
- 19 Mart 2020, 23 soruluk anket
- Hiçbir ülke HIV kliniğini kapatmamış
- Altı ülkede (% 31.6 )HIV klinikleri çalışıyor
- 11 ülkede (% 57,9) klinisyenler HIV + COVID-19 takibi
- 2 hafta içinde ART kesintisi beklenmiyor
- Kaynak kıtlığı
- ART sürekliliği için hazırlık yapılmalı



- Pandeminin 90-90-90 hedefi üzerine olumsuz etkisi
- Tanı güçlükleri
- İsimli test merkezlerinin kapatılması
- ART erişimi
- Tedavi uyumsuzluğu
- Yaşam kalitesi





# COVID-19 salgını, Kenyalı ALHIV ve haneleri için sosyoekonomik etkileri yıkıcı oldu. ALHIV, bakımın son zamanlarda kesilmesiyle özellikle savunmasız olabilir. Bu kriz sırasında ALHIV, kritik desteğe ihtiyaç duymaktadır.

- HIV ile yaşayan ergenler (ALHIV, 10-19 yaş) antiretroviral tedaviye (ART) uymak ve bakımda kalmak için karmaşık zorluklar yaşar
- COVID-19 pandemisi sırasında kesintilere karşı savunmasız olabilir
- Katılımcılar Kenya'da 3 bölgede devam eden prospektif çalışmadan
- Bakımda kalan 275/308 (%89.3)
- Programa bağlı kalmayan (LTP) 59/70 (%84.3)
- Temmuz 2020-Ocak 2021 arasında, telefon görüşmeleri ile
- Pandemi sırasında, LTP ergenlerinin daha büyük bir kısmı artık okula gitmiyordu (%45.8'e karşı %36.4,  $p = 0.017$ )
- Ergenlerin üçte birinden fazlası (120, %35.9) güvendikleri biri için gelir kaybı bildirdi
- Toplamda, 135'i (%40,4) zamanın bir kısmında (%121, %36,2) ya da çoğu (%14,2) yeterli yiyeceğe sahip değildi
- Daha fazla LTP ergeni (4/59, %6.8'e karşı 2/275, %0.7,  $p = 0.010$ ) ART'yi yeniden doldurmada artan güçlükler bildirdi

RESEARCH ARTICLE

## Social, economic, and health effects of the COVID-19 pandemic on adolescents retained in or recently disengaged from HIV care in Kenya

Leslie A. Erano<sup>1,2,3\*</sup>, Edith Apondi<sup>3,4</sup>, Josephine Aluoch<sup>3</sup>, Giorgos Bakoyannis<sup>5</sup>, Jayne Lewis Kulzer<sup>6</sup>, Zachary Kwenza<sup>7</sup>, Rami Kantor<sup>8</sup>, Ashley Chory<sup>9,10</sup>, Adrian Gardner<sup>11</sup>, Michael Scanlon<sup>12</sup>, Suzanne Goodrich<sup>11</sup>, Kara Wools-Kaloustian<sup>1,2,11</sup>, Betsy Ekul<sup>12</sup>, Rachel C. Vreeman<sup>5,10</sup>



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### OPEN ACCESS

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### Abstract

#### Introduction

Adolescents living with HIV (ALHIV, ages 10–19) experience complex challenges to adhere to antiretroviral therapy (ART) and remain in care, and may be vulnerable to wide-scale disruptions during the COVID-19 pandemic. We assessed for a range of effects of the pandemic on ALHIV in western Kenya, and whether effects were greater for ALHIV with recent histories of being lost to program (LTP).

#### Methods

ALHIV were recruited from an ongoing prospective study at 3 sites in western Kenya. The parent study enrolled participants from February 2019–September 2020, into groups of ALHIV either 1) retained in care or 2) LTP and traced in the community. Phone interviews from July 2020–January 2021 assessed effects of the pandemic on financial and food secu-

Teletıp tedavisine geçişten sonra viral baskılama ve bakımda kalma

Ocak/Şubat 2020 - Nisan 2020

COVID-19 öncesi ile karşılaştırıldığında viral baskılanmama olasılığı %32 daha yüksek  
(aOR: 1.32; %95 GA: 1.08-1.53)

Nisan 2020'de evsiz bireylerde , diğer gruplara kıyasla 3 kat daha yüksek

Siyah hastalarda, COVID-19'un başlangıcından önce ve sonra viral baskılanma olasılığı daha düşük

Table 1 - Factors associated with unsuppressed viral load and no-show visits before and after shelter-in-place/COVID-19a.

Factor	Unsuppressed viral load adjusted odds ratio; 95% Confidence Interval	No-show visit Adjusted odds ratio; 95% confidence interval
Post-COVID-19 vs. pre-COVID-19	1.31; 1.08-1.53	0.91; 0.77-1.09
Age under 35 <sup>a</sup>	1.29; 1.11-1.51	1.57; 1.28-1.93 (Pre-COVID-19) 1.11; 0.82-1.51 (Post-COVID-19)
Female vs. male birth sex	0.94; 0.77-1.15	0.99; 0.80-1.21
Race/ethnicity vs. white		
Black	1.50; 1.33-1.91	1.14; 0.94-1.38
Latın	1.04; 0.63-1.34	1.05; 0.88-1.27
Asian	0.92; 0.63-1.34	1.15; 0.82-1.64
Other	0.96; 0.78-1.19	0.97; 0.77-1.24
Homeless housing status <sup>a</sup>	2.27; 1.91-2.71 (Pre-COVID-19) 3.35; 2.74-4.12 (Post-COVID-19)	1.15; 0.95-1.32 (Pre-COVID-19) 0.64; 0.48-0.85 (Post-COVID-19)
Telephone vs. in-person visits (post-COVID-19 only)	-	0.56; 0.35-0.86

aEach factor was tested for an interaction with the pre/post COVID-19 time interval indicator. Adjusted odds ratios and 95% confidence intervals are presented separately for before and during COVID-19 time intervals if the test of interaction P-value was <0.1 [6].

AIDS



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Retroviruses

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AIDS Research and Human Retroviruses, Vol. 33, No. 12 | Epidemiology

## Adherence to Antiretroviral Therapy in Turkey: Results from the ACTHIV-IST Study Group

Dilek Yildiz Sevgi , Alper Gunduz, Ozlem Altuntas Aydin, Bilgul Mete, Fatma Sargin, Hayat Kumbasar Karaosmanoglu, Nuray Uzun, Mucahit Yemisen, Ilyas Dokmetas, and Fehmi Tabak

Published Online: 1 Dec 2017 | <https://doi.org/10.1089/aid.2016.0266>

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### Abstract

Maintaining optimal adherence to antiretroviral therapy (ART) is essential for optimizing the management of HIV infection. The aim of this study is to explore ART adherence rates in Turkey. Included in this study were a total of 263 HIV-infected patients followed up by the ACTHIV-IST (ACTion against HIV in Istanbul) Study Group affiliated with four tertiary hospitals. The study population included patients 18 years of age or older who were on ART for over 12 months. Adherence was assessed by the medication possession ratio (MPR) calculated for each patient using data (a list of all drugs dispensed within the previous year for that patient) obtained from pharmacy medication records. In addition, patients completed a self-report questionnaire addressing missed doses and the AIDS Clinical Trials Group (ACTG) adherence questionnaire. The study was reviewed and approved by the Ethics Committee of Cerrahpasa Medical Faculty. Patient ages ranged from 19 to 71 years. Two hundred and thirty-one patients were male (88%). Two hundred and twenty-four patients (85%) had optimal adherence (MPR  $\geq 95\%$ ). During the course of ART, 236 patients (90%) reported no missed doses in the past 4 days of their treatment, whereas 206 patients (78%) reported no missed doses in the past month. Simply forgetting was the most common reason for nonadherence. MPR was associated with virologic rebound. Major factors affecting adherence were being female, taking antituberculosis drugs, having an opportunistic infection, being able to take all or most of the medication as directed, and being aware of the need to take medication exactly as instructed to prevent the development of drug resistance. Adherence to ART measured by MPR and self-report surveys is relatively high in Turkey when compared with other countries, which probably led to high ART success rates.

---

Günümüzde HIV için kür olmadığından tedavi ömür boyu

---

Başarılı HIV tedavisi, büyük oranda hastanın tedavi uyumuna bağlı

---

ACT-HIVIST çalışma grubu olarak tedaviye uyum oranını ve ilişkili faktörleri değerlendirmeyi amaçladık


---

İstanbul'da dört merkez, 263 hasta, Mart 2014-Mart 2015 arasında

---

Uyumun ilaç sahip olma oranları, geri bildirim, ACTG ve ACTG takip anketleri ile değerlendirilmesi

---

Uyum oranı (> %95)  % 85

---

En sık tablet atlama nedeni unutmak (% 41)

---

Diğer nedenler evde olmamak, günlük rutinde değişiklik , uyumak

# Uyum ile

---

## **Olumsuz iliřki**

Kadın cinsiyet, fırsatçı infeksiyon, ek ilaç kullanımı

---

## **Olumlu iliřki**

İlacı almadığında direnç geliřebileceğinin farkında olma

Mayıs 2020- Eylül 2020

Ortalama yaş: 39±10 (18-83), 1755 erkek, 184 kadın

Pandemide % 14.8 iş kaybı, % 8.7 işsiz

Tedavi başlanmayan: 39 hasta

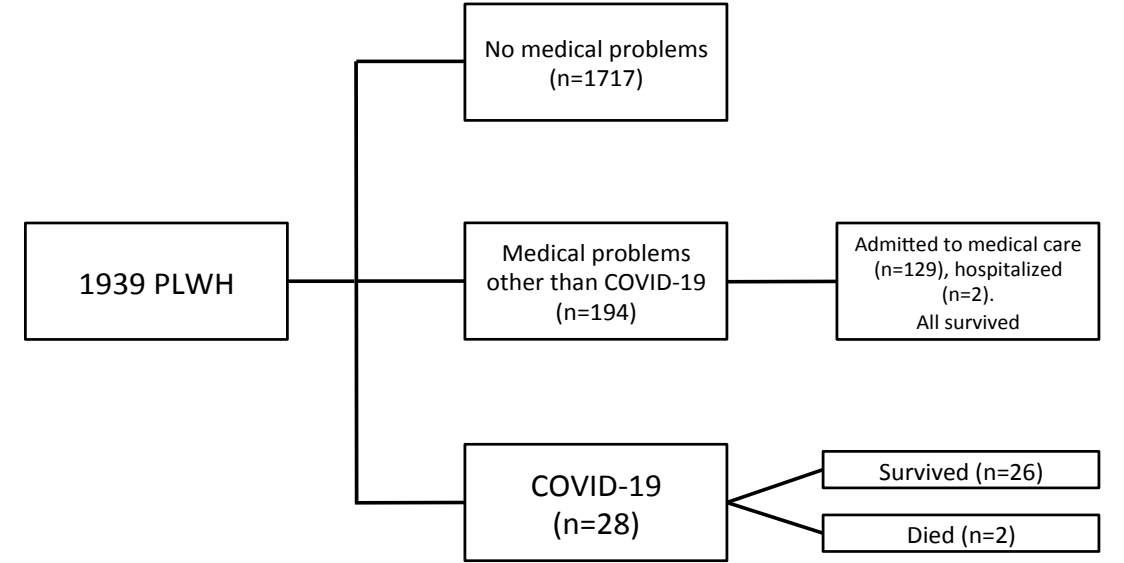
Kalan 1900 hasta

Hastaların büyük çoğunluğu (n=1719) ilaçlarını Sağlık Bakanlığı'nın yeni yönetmeliğine göre reçetesiz olarak eczaneden almış

Yüz on bir hasta hastaneye ulaşarak ilaç reçetesi, yedi hasta doktora ulaşarak

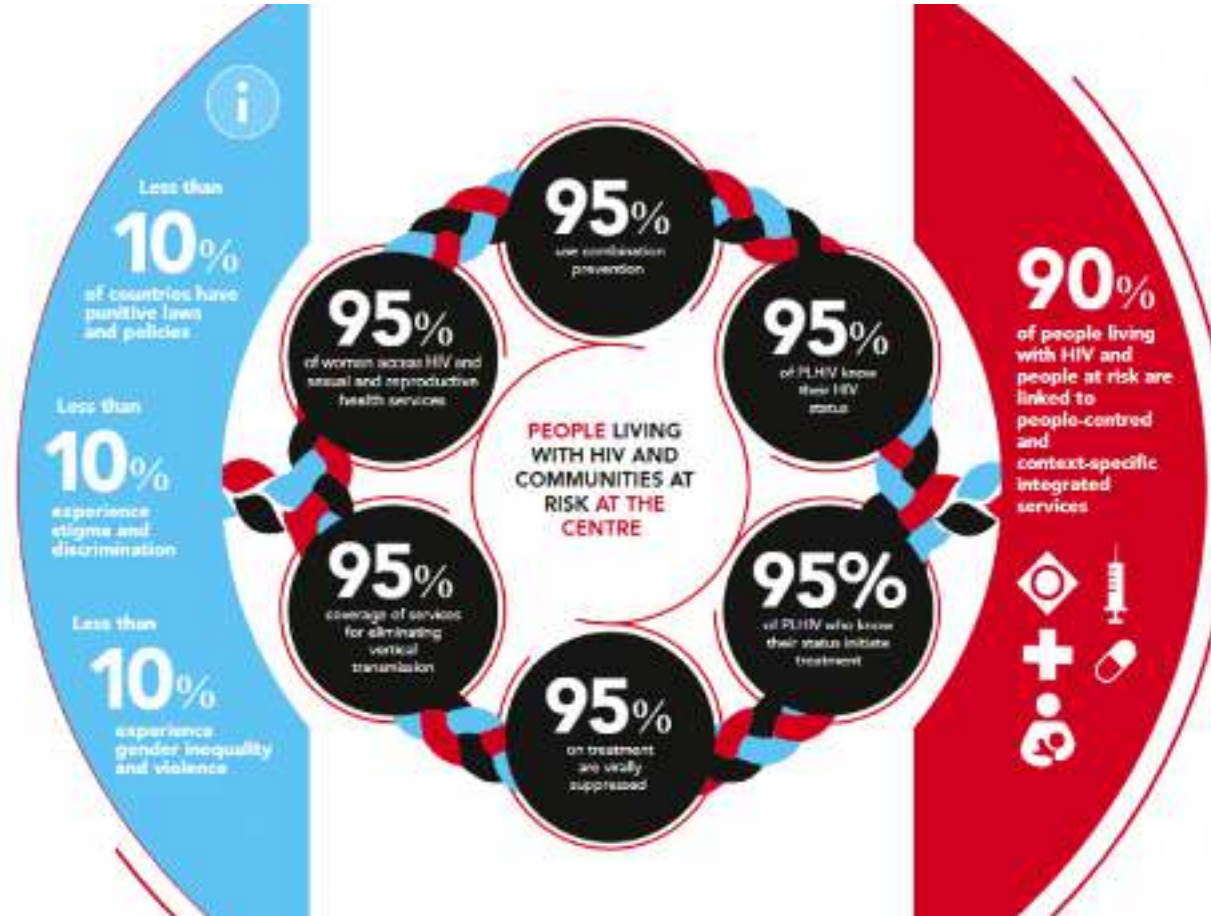
Elli üç (%2.79) hasta ilaçlarını alamamış ve tedaviye ara vermiş

## HIV Care Continuum During the COVID-19 Pandemic: Turkish Experience Summary



4-month Period of May 1, 2020 to September 1, 2020

# 2025 yılı hedefleri



# Tedavide Yaşanan Sorunlar

---

Hastaların virolojik supresyon oranı yüksek

---

Yeni tanı , henüz ART başlanmamış olan kişiler

---

ART başlanmış henüz tedaviye alışmamış olan kişiler

---

İlk dönemde LPV/r kullanan kişiler

---

İlaçları bulamama endişesi

---

Sağlık sigortası sorunu olan kişiler

---

Mülteci olan kişilerde sorun yok

---

Geri ödeme gecikmesi nedeni ile eczane kaynaklı sorun

---

Turistik izin, ikamet izni olanlar ilaca ulaşamamış

---

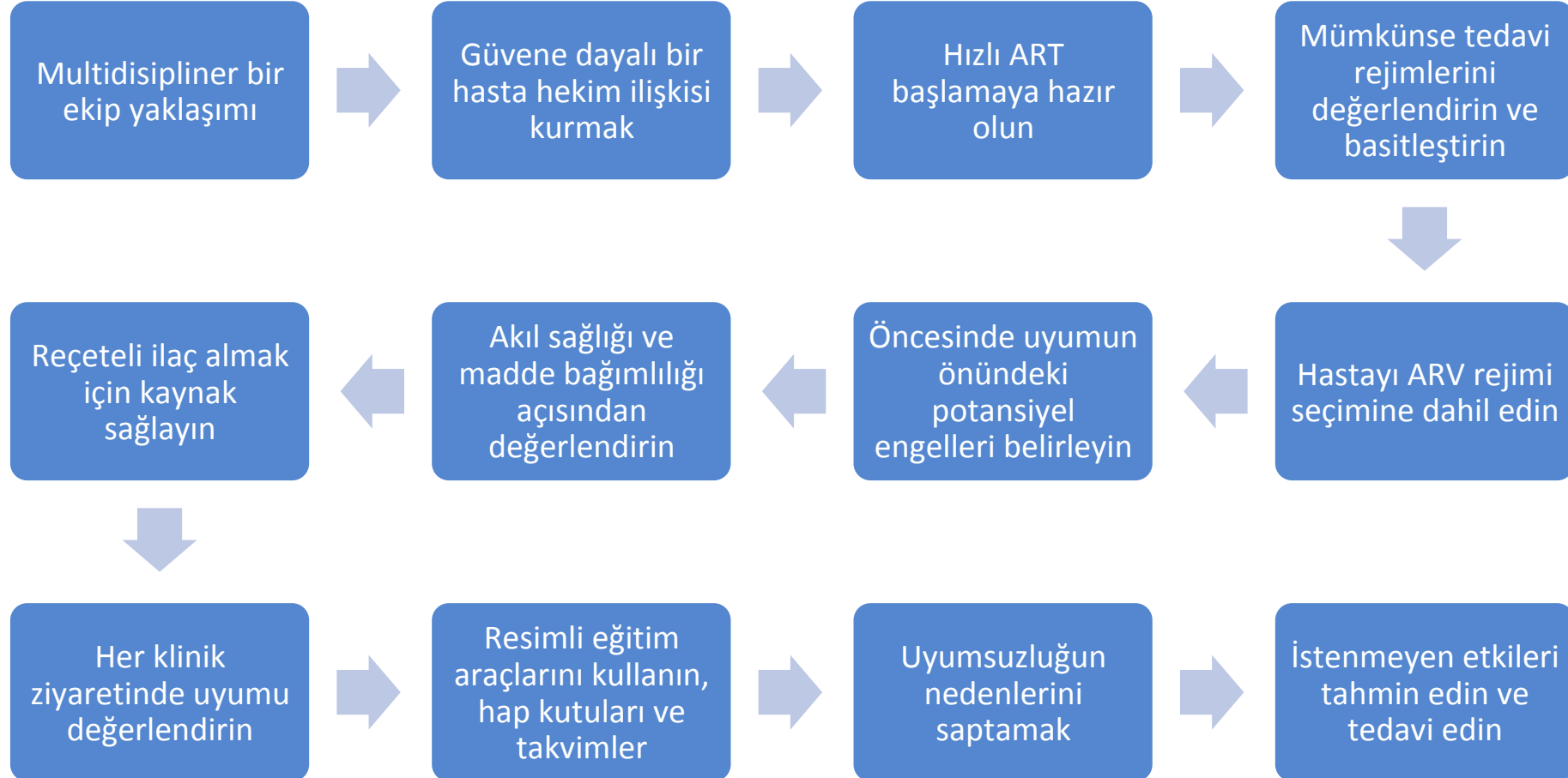
ART dışındaki tedavi ihtiyaçları önemli bir sorun



# İzolasyon ve Stigma ile İlgili Sorunlar

- Hastalarımızın büyük çoğunluğu ilk dönemde tam bir izolasyon uygulamış
- COVID-19 ile ilgili yoğun endişe
- İlerleyen aylarda azalmış
- COVID-19 tanısı ile takip ettiğimiz hasta sayımız az
- En büyük sorun işyeri için idari izin almak
- Kronik hastalığın belirtilmesinin istenmesi

# Uyumu İyileştirmek İçin



# COVID-19 ve ART Uyumlu

---

Hastaların antiretroviral ilaçlara ulaşmasının sağlanması

---

HIV enfekte kişiler kriz ve ekonomik kırılganlık dönemlerinde gıda, barınma, ulaşım ve çocuk bakımı konularında ek yardıma ihtiyaç duyabilir

---

Bakıma katılımı ve sürekliliği artırmak için hastaların ek sosyal yardım ihtiyacını değerlendirmek, girişimde bulunmak, kaynak bulmak

---

Sosyal mesafe ve izolasyon, ruh sağlığı ve madde kullanım sorunlarını daha da kötüleştirebilir

---

Hastaların bu endişelerini değerlendirmeli ve ele almalı, konsültasyonlar düzenlenmelidir

# COVID-19 ve ART Uyumlu

---

Telefon veya video görüşmeleri de dahil olmak üzere telesağlık seçenekleri düşünölmeli

---

Raporlar, pandemi için tasarlanmış bazı önlemlerin, yakın partner şiddeti ve/veya çocuk istismarı riskini artırabileceğini gösteriyor

---

Ayrıca kişilerin istismarcılardan uzaklaşma veya dış desteğe erişme imkanı sınırlı olabilir

---

Hastanın özel olarak konuşma yeteneğinin farkında olarak, yüz yüze veya teletıp yoluyla her klinik karşılaşmada hasta güvenliğini değerlendirmeli

---

Gebelik planlaması, çocuk doğurma potansiyeli olan tüm kişilerle tartışılmalı

---

Uygun kontrasepsiyonun sürdürölmesi veya başlatılması ele alınmalı

# Teletıp sistemleri



AIDS Public Health, 8(2): 201–208  
DOI: 10.1016/j.aiph.2020.1021  
Received: 30 December 2020  
Accepted: 21 March 2021  
Published: 23 March 2021

<http://www.elsevier.com/locate/aiph>

## Summary

### COVID-19 among LGBTQ+ individuals living with HIV/AIDS: psycho-social challenges and care options

Aditi Tamar<sup>1</sup>\*, Mandy N Spaldin<sup>2</sup>, Taylor Graves-Barnes<sup>1</sup> and Lisa T Wigler<sup>2</sup>

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<sup>2</sup> MD Anderson Cancer Center, USA

\* Correspondence: Email: [adit2483@tamu.edu](mailto:adit2483@tamu.edu)

**Abstract:** Prolonged social isolation during the COVID-19 lockdown has adversely impacted the mental, social, and physical well-being of the global population. Coping with mental and physical distress amidst the global lockdown is especially strenuous for the Lesbian, Gay, Bisexual, Transgender, and more (LGBTQ+) community, who are frequently subjected to social stigma and minority stress. Systematic stigma and discrimination place LGBTQ+ individuals at higher risk for deleterious behaviors, such as substance abuse (e.g., injection drug use, smoking, alcohol) and risky sexual practices (e.g., anal/vaginal/anal sex). Maladaptive coping behaviors consequently increase the chances of HIV/AIDS risk among LGBTQ+ individuals, compared to heterosexual individuals. LGBTQ+ individuals living with HIV/AIDS repeatedly face higher rates of unemployment, income disparity, and intimate partner violence. Prolonged home confinement, and impaired accessibility to healthcare, legal, and criminal justice services during lockdowns may deplete the quality of life of LGBTQ+ individuals living with HIV/AIDS. Therefore, it is critical that multidisciplinary service providers, including health professionals, employers, social service providers, educational institutions and community organizations, move toward online service delivery, so that homebound

MD and HIV/AIDS  
<http://dx.doi.org/10.1016/j.aiph.2020.1021>

## COVID-19, Telemedicine, and Patient Empowerment in HIV Care and Research

Offa Wang'ani<sup>1</sup>, Brian J. Wilber<sup>1</sup>, Anthony S. Simpson<sup>2</sup>, Robert H. Karlen<sup>1</sup>, Nege Shaleh<sup>1</sup>, Susan Oranoff<sup>1</sup>, New Orleans<sup>1</sup>, Nagda E. Schickowitz<sup>1</sup>

1. Section of HIV/AIDS, Johns Hopkins University, Baltimore, MD, USA

Even as the magnitude of the COVID-19 pandemic has increased, HIV care delivery throughout the U.S. To meet the needs of people living with HIV/AIDS (PLHIV), along with various health systems have expanded the use of telemedicine to provide additional services to their PLHIV, including adherence and care engagement. Despite these promising early results, PLHIV providers must consider the implications of telemedicine on the patient-provider relationship and the establishment of trust in ongoing care, particularly for those vulnerable. An approach focused on patients' values and preferences provides an opportunity to improve PLHIV's access, participation in HIV care. At HIV primary care physicians and researchers working at the Johns Hopkins are grappling with the health care and telemedicine services provided to their patients during the COVID-19 pandemic.

The current use of telemedicine in HIV care has increased over the past few years [1]. A recent study of 10,599 PLHIV found 70% of respondents were unlikely to receive care through HIV telemedicine services [2]. However, a study of 200 PLHIV living with HIV/AIDS in the United States found 67% of respondents were unlikely to receive care through HIV telemedicine services [3]. While the use of telemedicine may be necessary to provide ongoing care to PLHIV, the wide availability of options to both the PLHIV and HIV care providers, such as the use of text messaging, secure web-based HIV care [4]. While video telemedicine provides a platform for HIV care and exploration of potential models to better patient-provider care and research.

### View from the Clinic

A young African American woman with recent low HIV and multiple comorbidities presented for a follow-up video telemedicine visit. The patient was unemployed and had difficulty paying her gas bills due to the effects of COVID-19 global economic downturn status. During the visit, the patient was concerned by multiple medication failures with the video visit barrier, including many connectivity disruptions, as a result of her apartment's internet service. After the video visit barrier, including many connectivity disruptions, as a result of her apartment's internet service. After the video visit barrier, including many connectivity disruptions, as a result of her apartment's internet service. After the video visit barrier, including many connectivity disruptions, as a result of her apartment's internet service.

COVID-19 and HIV/AIDS  
<http://dx.doi.org/10.1016/j.aiph.2020.1021>

## The Impact of COVID-19 on HIV Care Provided via Telemedicine—Past, Present, and Future

John Z. Dushoff<sup>1</sup>, John D. Soren<sup>1</sup>, Shreshth Chandra<sup>1</sup>, Brian R. Wood<sup>1</sup>

1. The Institute of Global Health and Equity, Johns Hopkins University, Baltimore, MD, USA

### Abstract

Background: The COVID-19 pandemic has disrupted HIV care across the globe. Telemedicine has emerged as a key platform to provide HIV care during the pandemic. However, the impact of COVID-19 on HIV care provided via telemedicine is unclear. This study examined the impact of COVID-19 on HIV care provided via telemedicine in the United States. We examined the impact of COVID-19 on HIV care provided via telemedicine in the United States. We examined the impact of COVID-19 on HIV care provided via telemedicine in the United States. We examined the impact of COVID-19 on HIV care provided via telemedicine in the United States.

**Summary:** The COVID-19 pandemic has disrupted HIV care across the globe. Telemedicine has emerged as a key platform to provide HIV care during the pandemic. However, the impact of COVID-19 on HIV care provided via telemedicine is unclear. This study examined the impact of COVID-19 on HIV care provided via telemedicine in the United States. We examined the impact of COVID-19 on HIV care provided via telemedicine in the United States.

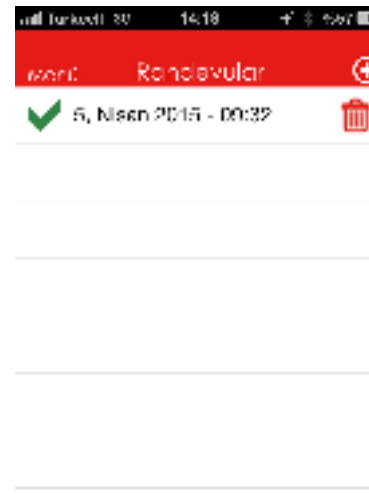
**Keywords:** Telemedicine; HIV; COVID-19; HEP

### Introduction

The COVID-19 pandemic has disrupted HIV care across the globe. Telemedicine has emerged as a key platform to provide HIV care during the pandemic. However, the impact of COVID-19 on HIV care provided via telemedicine is unclear. This study examined the impact of COVID-19 on HIV care provided via telemedicine in the United States. We examined the impact of COVID-19 on HIV care provided via telemedicine in the United States. We examined the impact of COVID-19 on HIV care provided via telemedicine in the United States. We examined the impact of COVID-19 on HIV care provided via telemedicine in the United States.

# MOB-HIV

- Hastaların tedaviye uyumunu arttırmak
- Hastalık ve ilaçlar hakkında bilgilere ulaşmalarını sağlamak
- Hastalara ilaç dozlarının ve poliklinik randevularını hatırlatmak





- Uygulama iki arayüzden oluşmaktadır.
- Hekimler bilgisayar, tablet ya da akıllı telefonlardan internet tarayıcısı aracılığıyla uygulamaya girebilecekler.



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Şifreli hastalarınız randevu talebinde olduğu saatleri belirleyebilirsiniz. **"Randevu Ayarları"** menüsünden **"Haftalık Plan Ayarları"** seçerek hastalarınıza ayarlanabilir saat aralığını, görüşme için ne kadar süreyle ve görüşme için bekleme süresi belirleyebilirsiniz.

**"Haftalık Plan Saatleri"** girerek 24 saatlik randevu saatleri için plan oluşturabilirsiniz. **"Randevu Uyarıları"** menüsünden **"Haftalık Plan Ayarları"** seçerek hastalarınıza ayarlanabilir saat aralığını, görüşme için ne kadar süreyle ve görüşme için bekleme süresi belirleyebilirsiniz.

Sol tarafta bulunan **"Hasta İşlemleri"** butonu ile randevu talebinde olan hastaların randevu saatini belirleyebilirsiniz. **"Hasta İşlemleri"** butonuna tıklayarak randevu talebinde olan hastaların randevu saatini belirleyebilirsiniz. **"Hasta İşlemleri"** butonuna tıklayarak randevu talebinde olan hastaların randevu saatini belirleyebilirsiniz.

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Özellikle randevu saatleri bir çok hastanın randevu talebinde olduğu saatleri belirleyebilirsiniz. **"Randevu Ayarları"** menüsünden **"Haftalık Plan Ayarları"** seçerek hastalarınıza ayarlanabilir saat aralığını, görüşme için ne kadar süreyle ve görüşme için bekleme süresi belirleyebilirsiniz.

**"Görüşmeye Başla"** seçeneğinden online görüşme için giriş yapabilirsiniz. **"Görüşmeye Başla"** seçeneğinden online görüşme için giriş yapabilirsiniz. **"Görüşmeye Başla"** seçeneğinden online görüşme için giriş yapabilirsiniz.



Online randevu talebinde olan hastaların randevu saatini belirleyebilirsiniz. **"Hasta İşlemleri"** butonuna tıklayarak randevu talebinde olan hastaların randevu saatini belirleyebilirsiniz.



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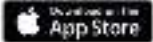
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Hastalar için



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Hastalar için



<https://play.google.com/store/apps/details?id=com.mobilife7-24>

<https://apps.apple.com/tr/app/mobilife7-24/id1482010000>



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Hastalar Listesi



Randevular

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# Türkiye HIV/AIDS Kontrol Programı

2019 - 2024



T.C. SAĞLIK BAKANLIĞI

Ankara, 2019

<b>Amaç 3. HIV ile yaşayan bireylere yönelik ayrımcılığı ve mahremiyet ihlallerini önlemek</b>	
<b>Hedef 3.1. Sağlık personelinin kişisel verilerin korunması ve mahremiyet ihlali ile ilgili bilgi düzeyi ve farkındalığını artırmak</b>	
<b>Faaliyetler</b>	1. Sağlık personelinin kişisel verilerin korunması ve hasta hakları (özellikle HIV pozitif bireyler) hakkında bilgi düzeyinin artırılması
<b>Hedef 3.2. Toplumsal düzeyde sosyal damgalamanın azaltulmasını sağlayacak programlar geliştirmek</b>	
<b>Faaliyetler</b>	1. HIV pozitif bireylere, ailelerine ve sosyal çevrelerine yönelik eğitimlerin düzenlenmesi ve gerekli destek mekanizmaların planlanması 2. Dışlanmayı ve ayrımcılığı önlemeye dair medya programları oluşturulması 3. Toplumda kanaat önderlerinin HIV enfeksiyonu hakkında farkındalıklarının artırılması 4. Hasta mahremiyetini ihlal eden programların RTÜK tarafından önlenmesi çalışmalarının yürütülmesi
<b>Hedef 3.3. Savunuculuk</b>	
<b>Faaliyetler</b>	1. Ulusal sağlık politikası geliştiren ve paydaş olan yöneticilerin hastalık hakkında farkındalıklarının artırılması 2. Toplumdaki HIV ile enfekte bireylerin ya da temsilcilerinin program geliştirme sürecine katılımlarının sağlanması. 3. HIV pozitif bireylerin toplumsal cinsiyet eşitsizliğinden doğan hak kayıplarının ve ayrımcılığın önlenmesine yönelik çalışmalar yürütülmesi 4. Dünya AIDS Gününde etkinlikler düzenlenmesi



Original research

## Undetectable equals untransmittable (U = U): awareness and associations with health outcome among people living with HIV in 25 countries

Chinyere Okoli,<sup>1</sup> Nicolas Van de Velde,<sup>1</sup> Bruce Richman,<sup>2</sup> Brent Allan,<sup>3</sup> Erika Castellanos,<sup>4</sup> Benjamin Young,<sup>5</sup> Garry Brough,<sup>6</sup> Anton Eremin,<sup>7</sup> Giulio Maria Corbelli,<sup>8</sup> Marta Mc Britton,<sup>9</sup> W. David Hardy,<sup>10</sup> Patricia de los Rios

### ABSTRACT

**Objectives** ‘Undetectable equals untransmittable’ (U=U) is an empowering message that may enable people living with HIV (PLHIV) to reach and maintain undetectability. We estimated the percentage of PLHIV who ever discussed U=U with their main HIV care provider, and measured associations with health-related outcomes. Secondly, we evaluated whether the impact of the U=U message varied between those who heard it from their healthcare provider (HCP) vs from elsewhere.

**Methods** Data were from the 25 country 2019 Positive Perspectives Survey of PLHIV on treatment (n=2389). PLHIV were classified as having discussed U=U with their HCP if they indicated that their HCP had ever told them about U=U. Those who had not discussed U=U with their HCP but were nonetheless aware that ‘My HIV medication prevents me from passing on HIV to others’ were classified as being made aware of U=U from non-HCP sources. Multivariable logistic regression was used to measure associations between exposure to U=U messages and health outcomes.

**Results** Overall, 66.5% reported ever discussing U=U with their HCP, from 38.0% (South Korea) to 87.3% (Switzerland). Prevalence was lowest among heterosexual men (57.6%) and PLHIV in Asia (57.3%). Compared with those unaware of U=U, those reporting U=U discussions with their HCP had lower odds of suboptimal adherence (AOR=0.59, 95% CI 0.44 to 0.78) and higher odds of self-reported viral suppression (AOR=2.34, 95% CI 1.72 to 3.20), optimal sexual health (AOR=1.48, 95% CI 1.14 to 1.92) and reporting they ‘always shared’ their HIV status (AOR=2.89, 95% CI 1.42 to 6.28). While exposure to U=U information from non-HCP sources was beneficial too, the observed associations were attenuated relative to those seen with reported discussions with HCPs.

**Conclusion** HCP discussion of U=U with PLHIV was

the 25.4 million people living with HIV on treatment are virally non-suppressed evidence-based campaign, ‘Undetectable Untransmittable’ (U=U),<sup>1,2</sup> is an emp message that may help motivate and in PLHIV to reach and maintain undetectabi key message behind this international c is that ‘See people who achieve and main suppression, there is effectively no risk of tag HIV to their HIV-negative sexual par

U=U is appealing in its simplicity, per and potential downstream benefits in p prevention at all levels, including (preventing transmission to uninfected secondary (ensuring regular viral load m and health screenings among PLHIV) an (improving PLHIV’s quality of life). By on being ‘unbreakable’, an objectively i health state, U=U provides PLHIV with a bigness health target that emphasises responsibility.<sup>3,4</sup> ‘Untransmissibility’, the ‘U=U’ message has been incorporated into numerous public health campaigns and clinical guidelines.<sup>5–11</sup> Discussing U=U in clinical settin because patients perceive information t directly from their healthcare providers ( being more believable.<sup>12</sup> The impact of H selling has been well demonstrated in ot of public health such as smoking cessation strategies are likely the best route to reach

the 25.4 million people living with HIV on treatment are virally non-suppressed evidence-based campaign, ‘Undetectable Untransmittable’ (U=U),<sup>1,2</sup> is an emp message that may help motivate and in PLHIV to reach and maintain undetectabi key message behind this international c is that ‘See people who achieve and main suppression, there is effectively no risk of tag HIV to their HIV-negative sexual par

### FULL TEXT ARTICLE

## Providers should discuss U=U with all patients living with HIV

Sarah K Calabrese and Kenneth H Mayer

Lancet HIV, The, 2019-04-01, Volume 6, Issue 4, Pages e211–e213, Copyright © 2019 Elsevier Ltd

As scientific knowledge surrounding the link between HIV viral suppression and transmission risk evolves, messaging to patients must be updated accordingly. Presenting the results of the multisite, observational PARTNER2 study at the 22nd International AIDS Conference, Alison Rodger reported that no phylogenetically linked infections occurred following more than 76 000 condomless sex acts between virally suppressed men and their HIV-negative male partners.<sup>1</sup> This finding reinforces existing consensus by WHO and more than 750 other organisations worldwide that people whose HIV viral load is stably suppressed cannot sexually transmit the virus.<sup>2</sup> With evidence supporting undetectable=untransmittable (U=U) now overwhelming ( table ), 1 3 4 5 6 providers should be routinely communicating the message to

## Prioritising pleasure and correcting misinformation in the era of U=U

Sarah K Calabrese, Kenneth H Mayer, Julia L Marcus

There is widespread unawareness and disbelief regarding the evidence-based conclusion that people who have a sustained undetectable HIV viral load cannot sexually transmit HIV—ie, undetectable=untransmittable (U=U). Long-standing, misguided fear about HIV transmission persists; consequently, so does the policing of sexual expression and the penalisation of pleasure faced by people with HIV. Many people with HIV with an undetectable viral load have unnecessarily abstained from condomless sex, avoided serodifferent partnering, and had anxiety about onward sexual transmission due to perceived HIV risk that is now known to be non-existent. Some health professionals have refrained from correcting this misinformation because of concerns that people with HIV will engage in more condomless sex or have more sexual partners upon learning of U=U. Withholding information about U=U is thus noted in behavioural assumptions and is scientifically unfounded. Moreover, withholding such information violates medical ethics, perpetuates health inequities, and infringes on the sexual health and human rights of people with HIV. Health professionals and the broader public health community have an ethical responsibility to actively address misinformation about HIV transmission and disseminate the U=U message to all people.

### Introduction

transmission risk during patient interactions.<sup>4,5</sup> We

For full text visit the journal online at [http://dx.doi.org/10.1016/S2666-361X\(19\)30033-1](http://dx.doi.org/10.1016/S2666-361X(19)30033-1)

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Podcast icon



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**B=B**

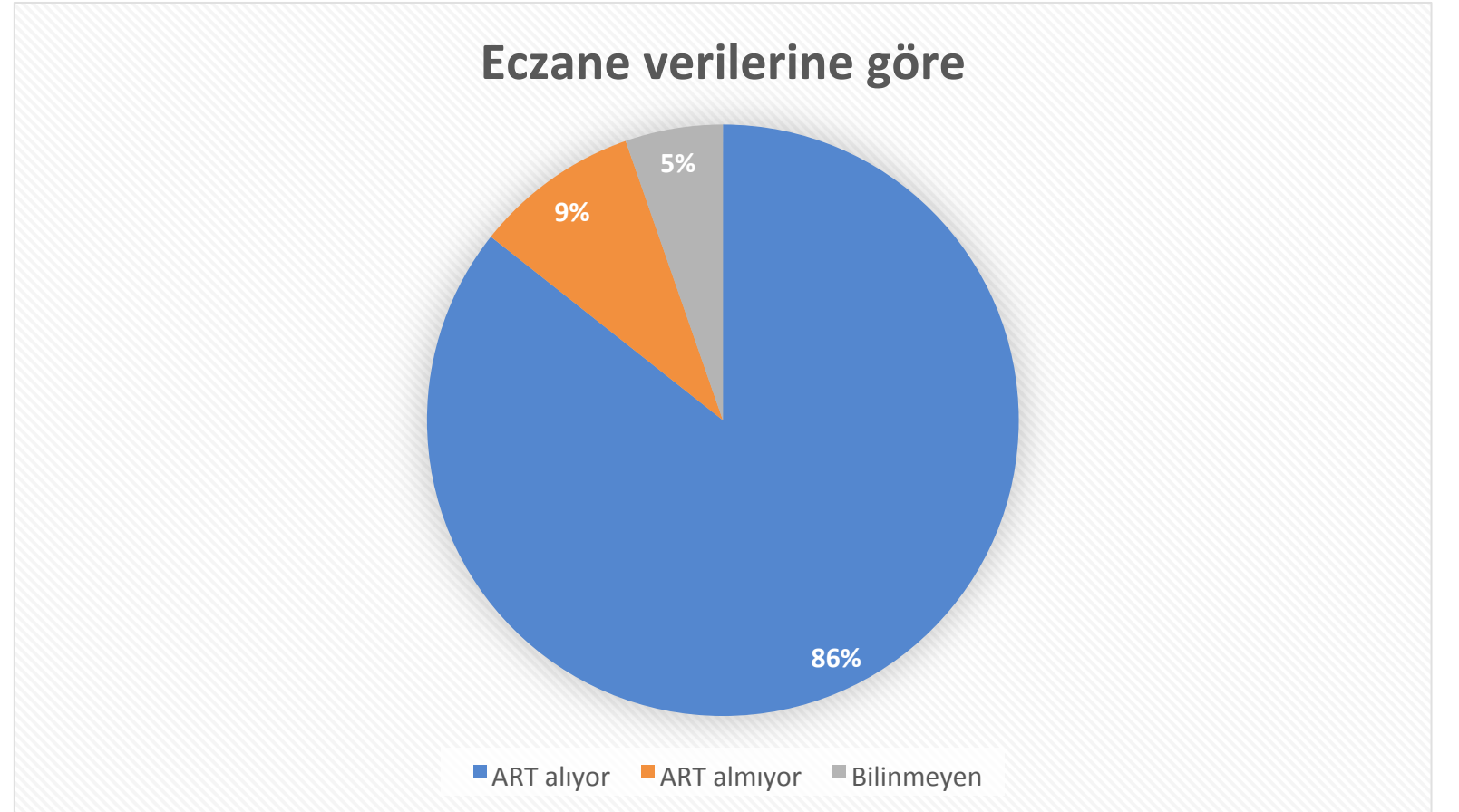
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