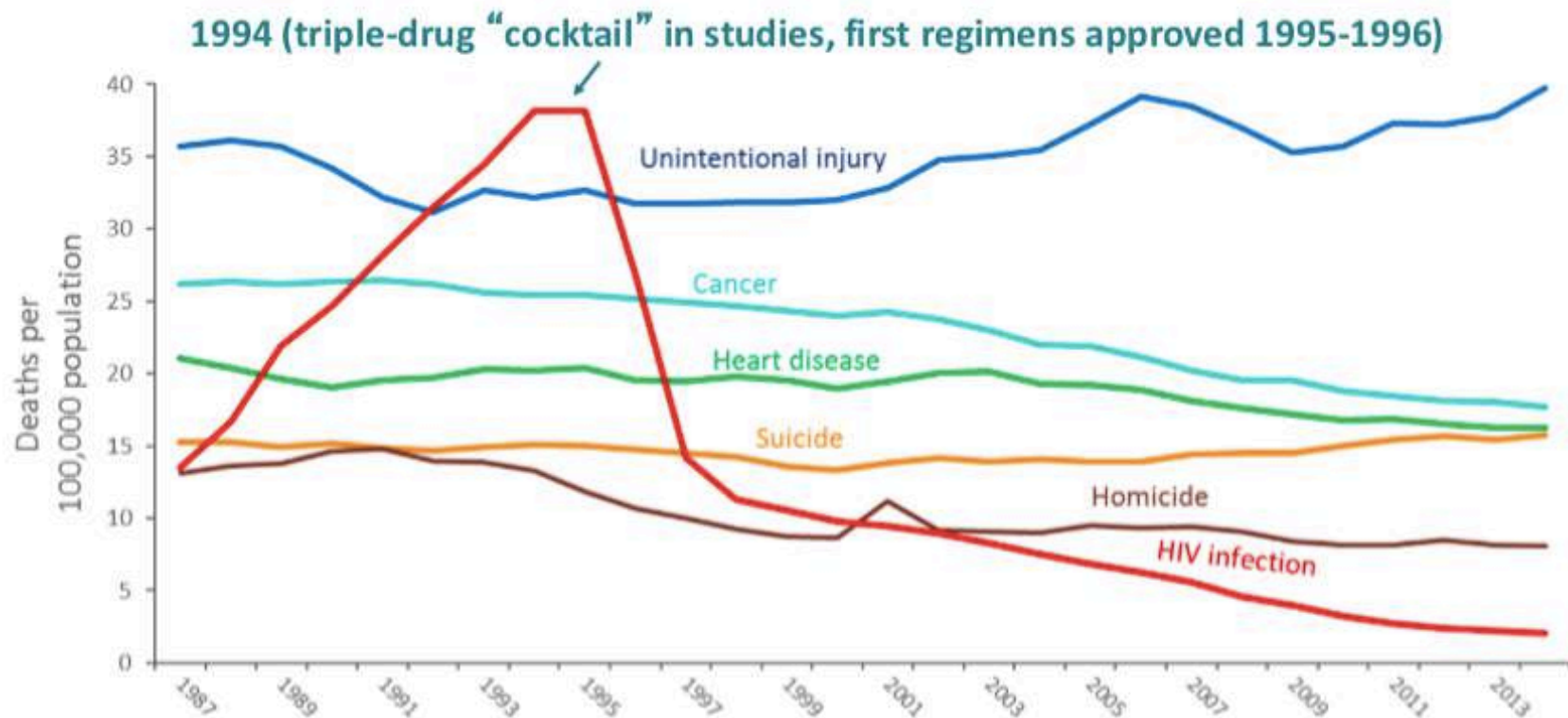


Temas öncesi profilaksi (PrEP)

Ahmet Çağkan İnkaya
Hacettepe Üniversitesi Tıp Fakültesi
Enfeksiyon Hastalıkları Anabilim Dalı
inkaya@hacettepe.edu.tr



Trends in Annual Rates of Death due to the Six Leading Causes among Persons 25-44 Years Old, 1987–2014—United States



Note: For comparison with data for 1999 and later years, data for 1987–1998 were modified to account for ICD-10 rules instead of ICD-9 rules.

Estimated annual incidence of HIV infections
in the U.S. declined **18%** from 2008-2014

56%
decline

among
**people who
inject drugs**

36%
decline

among
heterosexuals

PrEP

İngilizce - algılandı ↕ Türkçe

prep × **hazırlık**

prep

🔊 🎤 🔊 📄

prep için çeviriler

sıfat

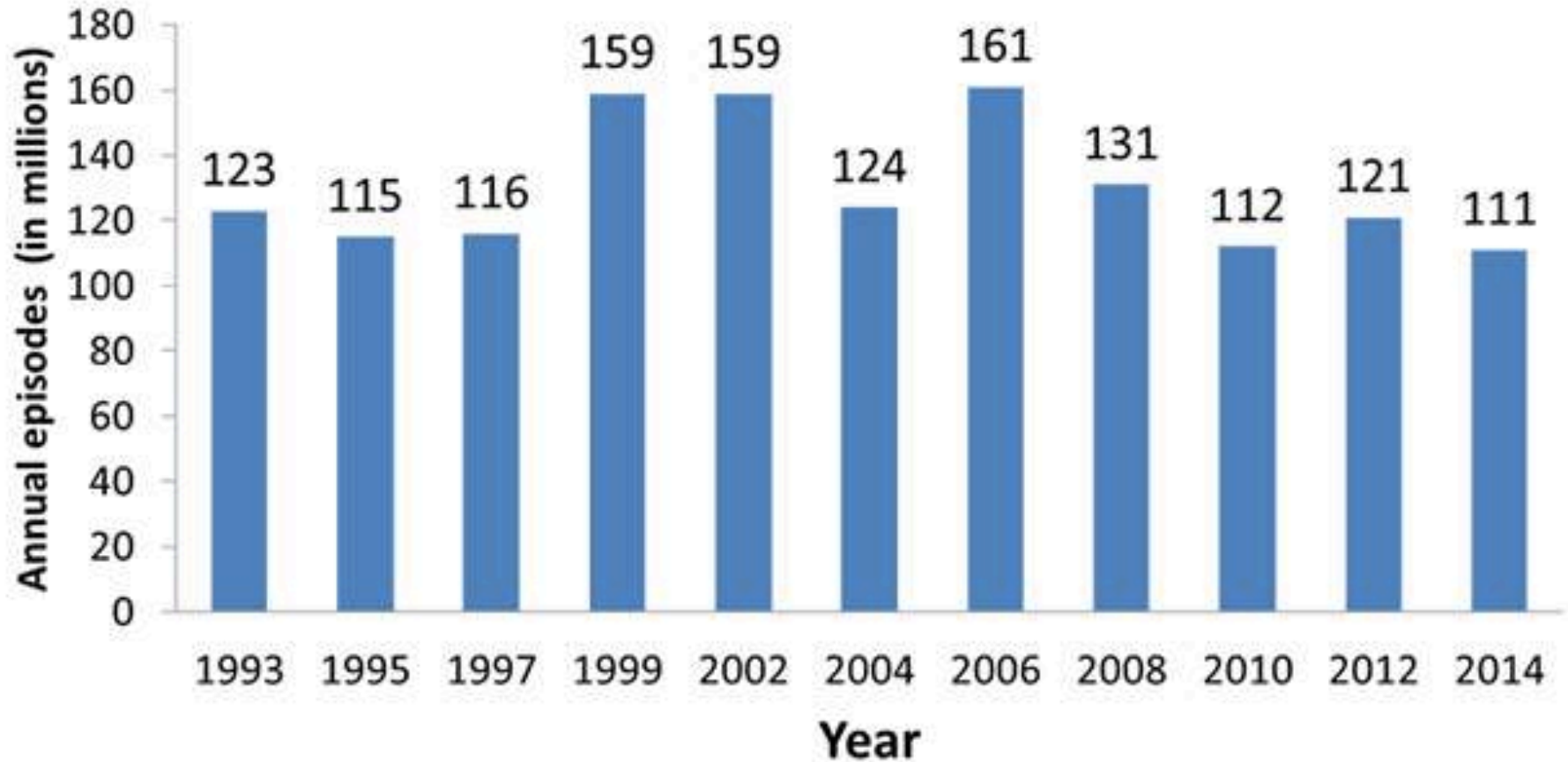
ev ödevi
prep

hazırlık öğrencisi
prep

hazırlık okulu
prep

özel ilkokul
prep

Riskli davranış I



Riskli davranış II

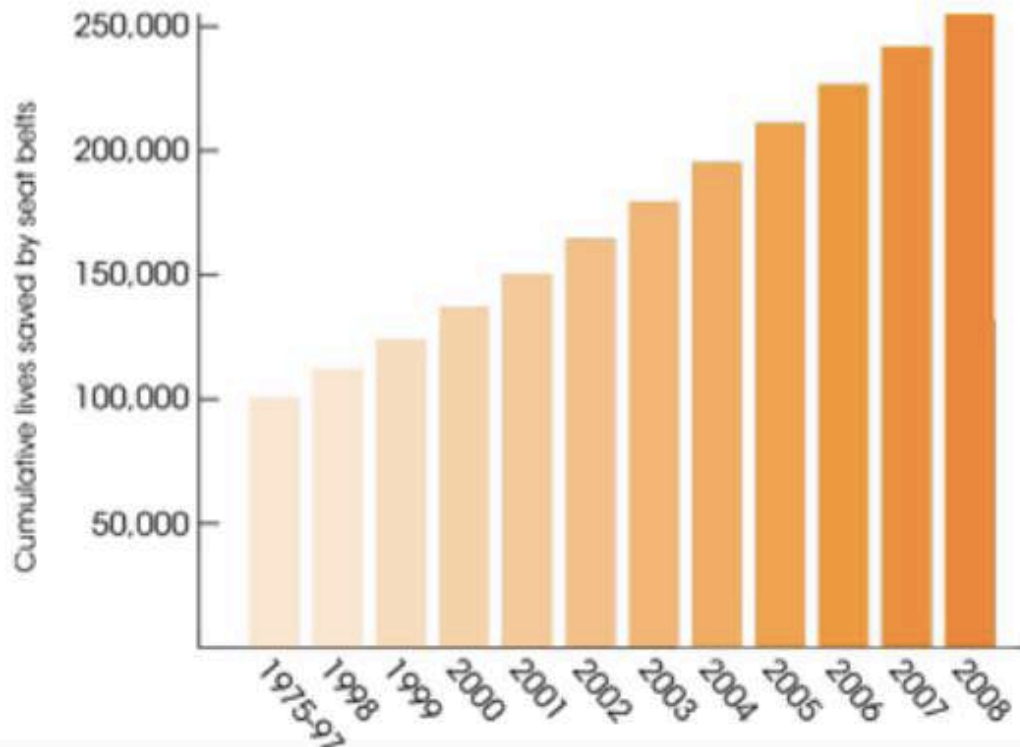
	2010	2011	2012	2013	2014	2015
 Deaths	3,092	3,331	3,328	3,154	3,179	3,477
 Deaths	32,999	32,479	33,782	32,894	32,744	35,092
 Injuries	416,000	387,000	421,000	424,000	431,000	391,000
 Injuries	2,239,000	2,217,000	2,362,000	2,313,000	2,338,000	2,443,000

Ne yapalım?

While it's OK to purchase your child's clothes in a size larger than he or she wears, the same is not true of helmets; helmets should fit perfectly when you purchase them.

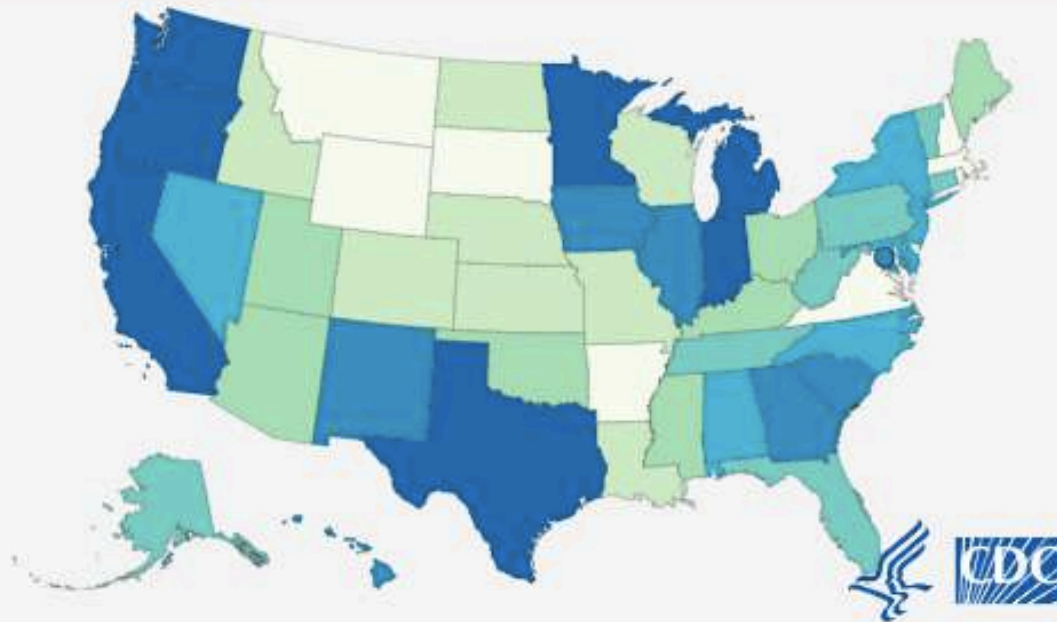
Emniyet kemeri işe yarıyor

Seat Belts Have Saved an Estimated 255,000 Lives Since 1975⁵



Emniyet kemeri

Percentage of Drivers and Front Seat Passengers Wearing Seat Belts, 2012



Source for national data: National Occupant Protection Use Survey (NOPUS), 2012. Source for state data: State Observational Survey of Seat Belt Use, 2012.



Bir kötü sonucu engellemek için eş zamanlı olarak önlemler alınması gerekir

Örnekler

- Kateter bakımı
- VİP engellenmesi
- Kateter ilişkili üriner sistem enfeksiyonlarının engellenmesi
-

Enfeksiyonu engelleyen en etkili yöntem

AŐI

Ending the HIV Epidemic: A Plan for America

HHS is proposing a once-in-a-generation opportunity to eliminate new HIV infections in our nation. The multi-year program will infuse 48 counties, Washington, D.C., San Juan, Puerto Rico, as well as 7 states that have a substantial rural HIV burden with the additional expertise, technology, and resources needed to end the HIV epidemic in the United States. Our four strategies – diagnose, treat, protect, and respond – will be implemented across the entire U.S. within 10 years.

GOAL:

75%
reduction
in new HIV
infections
in 5 years
and at least
90%
reduction
in 10 years.



Our goal is ambitious and the pathway is clear – employ strategic practices in the *places* focused on the *right people* to:



Diagnose all people with HIV as early as possible after infection.



Treat the infection rapidly and effectively to achieve sustained viral suppression.



Protect people at risk for HIV using potent and proven prevention interventions, including PrEP, a medication that can prevent HIV infections.

Respond rapidly to detect and respond to growing HIV clusters and prevent new HIV infections.



HIV HealthForce will establish elimination teams committed to the success of the initiative in each jurisdiction.

The Initiative will target our resources to the 48 highest burden counties, Washington, D.C., San Juan, Puerto Rico, and 7 states with a substantial rural HIV burden.



Geographical Selection:

Data on burden of HIV in the US shows areas where HIV transmission occurs more frequently. More than 50% of new HIV diagnoses* occurred in only 48 counties, Washington, D.C., and San Juan, Puerto Rico. In addition, 7 states have a substantial rural burden – with over 75 cases and 10% or more of their diagnoses in rural areas.

*2016-2017 data

Ending
the
HIV
Epidemic

www.HIV.gov

Hasta olmadan doktora gitmek aklında gelmez ya... Bu anlayışı yıkmak için geldim doktor bey.

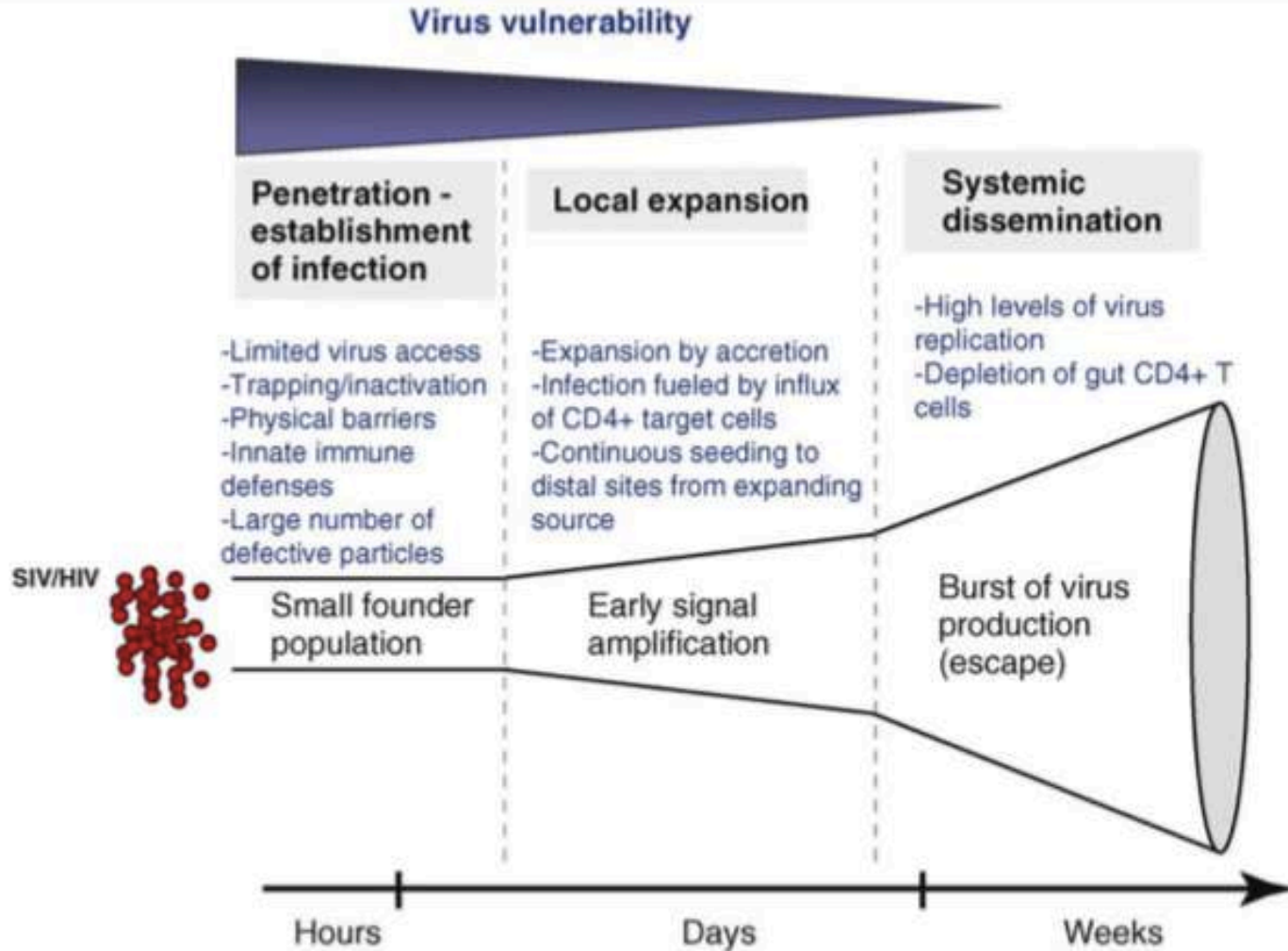


PrEP nedir?

TDF/FTC tablet

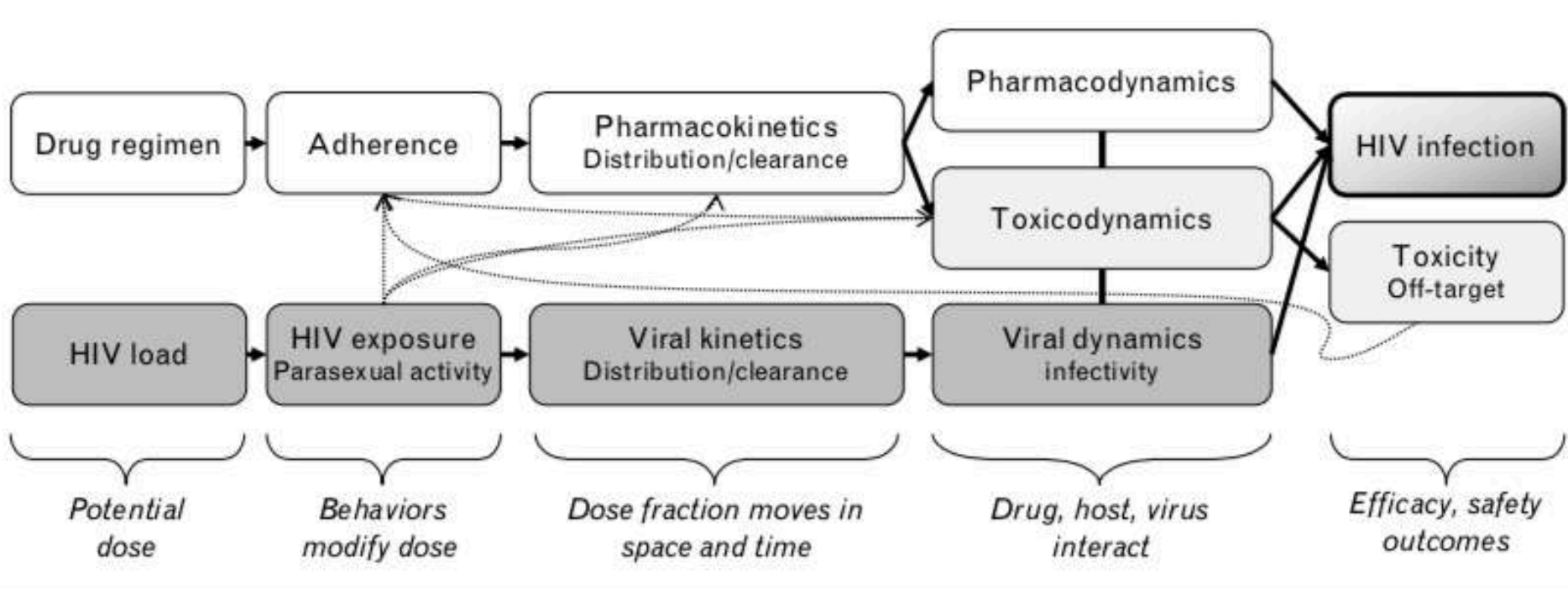


Nasıl olur da iş görür?

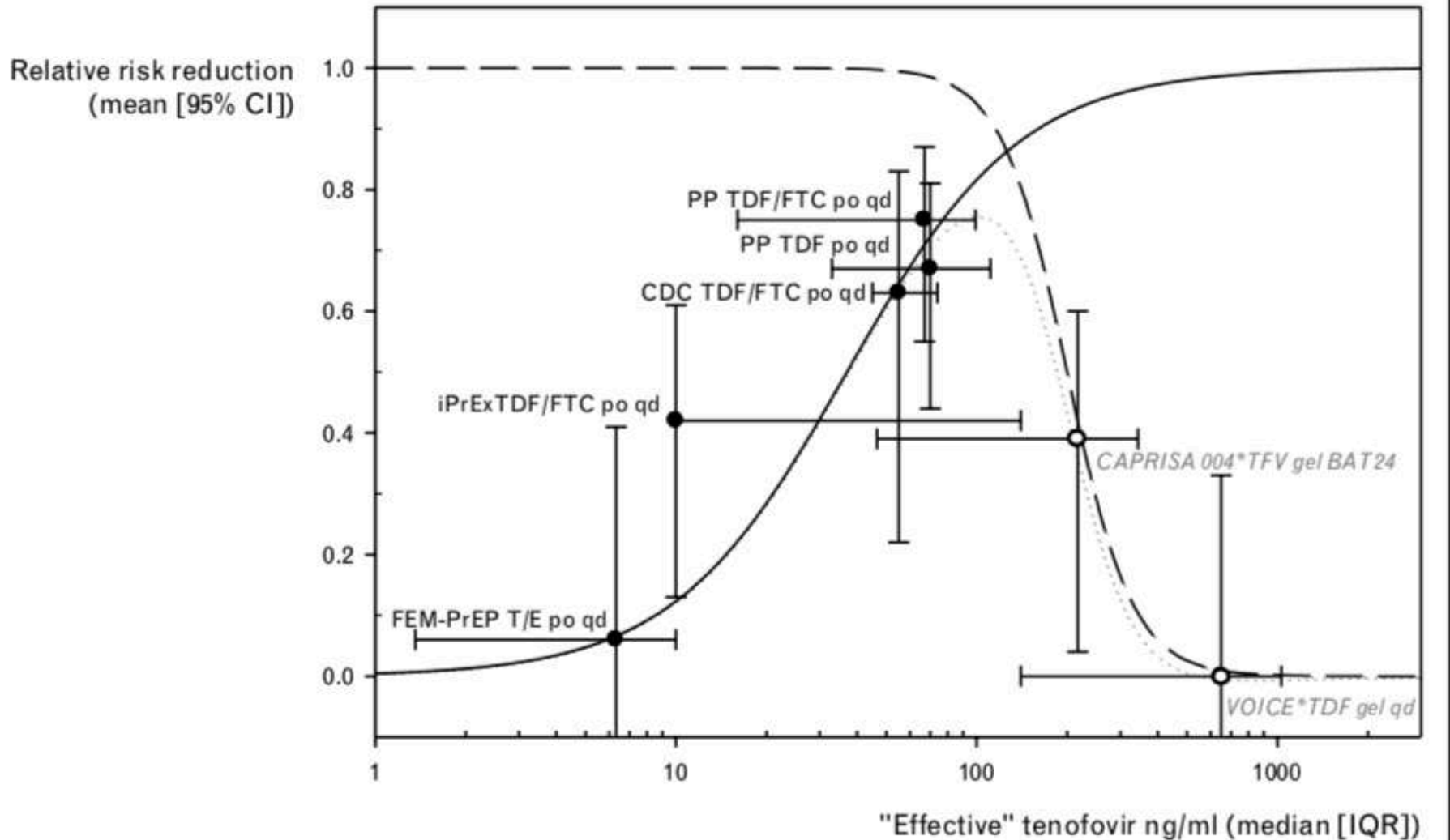


TRENDS in Pharmacological Sciences

PrEP başarılı olması için



TDF/FTC konsantrasyon ve korunma



Etkili mi?

Table 1 Overview of prospective systemic oral PrEP studies in humans with relative risk reduction, details of adherence and adherence corrected relative risk reduction

Study	Risk population	Administration	Study subjects (n)	PrEP agent	mITT ^a % efficacy of relative risk reduction for HIV seroconversion		Plasma samples with detectable TFV levels	Adjusted efficacy after TFV plasma levels in peripheral blood	
					%	95 % CI		%	95 % CI
iPrEx [14]	MSM	c	2499	TDF/FTC	44	15–63	51	92	40–99
Partners PrEP [11]	HIV-discordant couples	c	4747	TDF	67	44–81	81	86	67–94
		c		TDF/FTC	75	55–87		90	58–98
IPERGAY [15]	MSM	i	414	TDF/FTC	86	40–99	NR	NR	–
Proud [16]	MSM	c	545	TDF/FTC	86	58–96 ^b	NR	NR	–
TDF 2 [20]	Heterosexual	c	1200	TDF/FTC	62	22–83	80	85	NS
Bangkok Tenofovir Study [17]	IVDA	c	2413	TDF	49	10–72	67	74	2–91
Fem-PrEP [12]	Heterosexual women	c	1951	TDF/FTC	6 ^c	–52 to 41	<30	NR	–
Voice [13]	Heterosexual women	c	5029	TDF/FTC	6.7 ^c	4.7–8.3	<30	NR	–

Etkililik

- NNT = 13 [13, 90 % CI 9–25, $p = 0.002$]
- İnfluenza Aşısı
 - NNT = 71 (influenzayı engellemek)
 - NNT = 29 yaşlılarda, 5 çocuklarda
- HCV tedavisinde ikinci nesil antiviral
 - NNT = 4

Spinner CD et al 2015 *HIV pre-exposure prophylaxis (PrEP): a review of current knowledge of oral systemic HIV PrEP in humans* Infection

McCormack, S et al 2015 *Pragmatic open-label randomised trial of preexposure prophylaxis to prevent the acquisition of HIV-1 infection: the PROUD study* Lancet

Demichelli V et al 2018 *Vaccines for preventing influenza in healthy adults* Cochrane Database of Systematic Reviews

Suwanthawornkul T et al 2015 *Efficacy of second generation direct-acting antiviral agents for treatment naïve hepatitis C genotype 1: a systematic review and network meta-analysis* PloS one

PrEP toplumsal etkinlik

	2012	2013	2014	2015	2016	2017
HIV insidans oranı	4.72	4.65	4.18	3.70	3.66	3.46
PrEP kullanımı (risk altındaki 100 kişi başına)	1.6	2.2	4.4	9.6	11.9	15.4
Suprese PLWH	79.8	81.9	83.3	84.5	85.7	86.7

	Etki %
Total	15.2
PrEP	5.9
TasP	2.9

Kimler kullanmalı?

- HIV negatif MSM
- CYBH tanısı alan birey
- PEP alan kişi
- Chem seks
- Slam seks
- HIV negatif çok eşli kadın veya erkek

PrEP başlamadan

- Kişinin HIV durumu bilinmeli
- Kişinin HBV durumu bilinmeli
- Anlat
 - Diğer CYBH için korumaz
 - Düzenli HIV testi şart
 - Böbrek ve kemik sağlığını bozabilir

Nasıl kullanılır

Event-driven, intermittent administration						
						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			 & Risk contact			
						
Continuous administration						

Korku I: Direnç

Study name	Number of subjects mITT	Number of all seroconversions beginning from enrollment/resistance at enrollment/ resistance after enrollment	Genotypic resistance mutations detected (if any)
iPrEx [14]	1.251	46/2/0	M184V/I, K103N, T215Y
Partners PrEP [11]	3.163	64/3/4	K65R, M184V, K70, D67N, K103N, V106A
TDF 2 [20]	611	11/1/0	K65R, M184V, A62V
Bangkok tenofovir study [17]	1.204	17/0/0	–
Fem-PrEP [12]	1.062	35/NR/4	M184V/I
Voice [13]	2.010	127/3/1	M184V/I
IPERGAY [15]	199	2/NR/NR	NR
Proud [16]	545	3/NR/NR	M184V/I
Total	10.045	305/9/9	

%0.18 (18/10045)

antiHIV pozitifleşenler

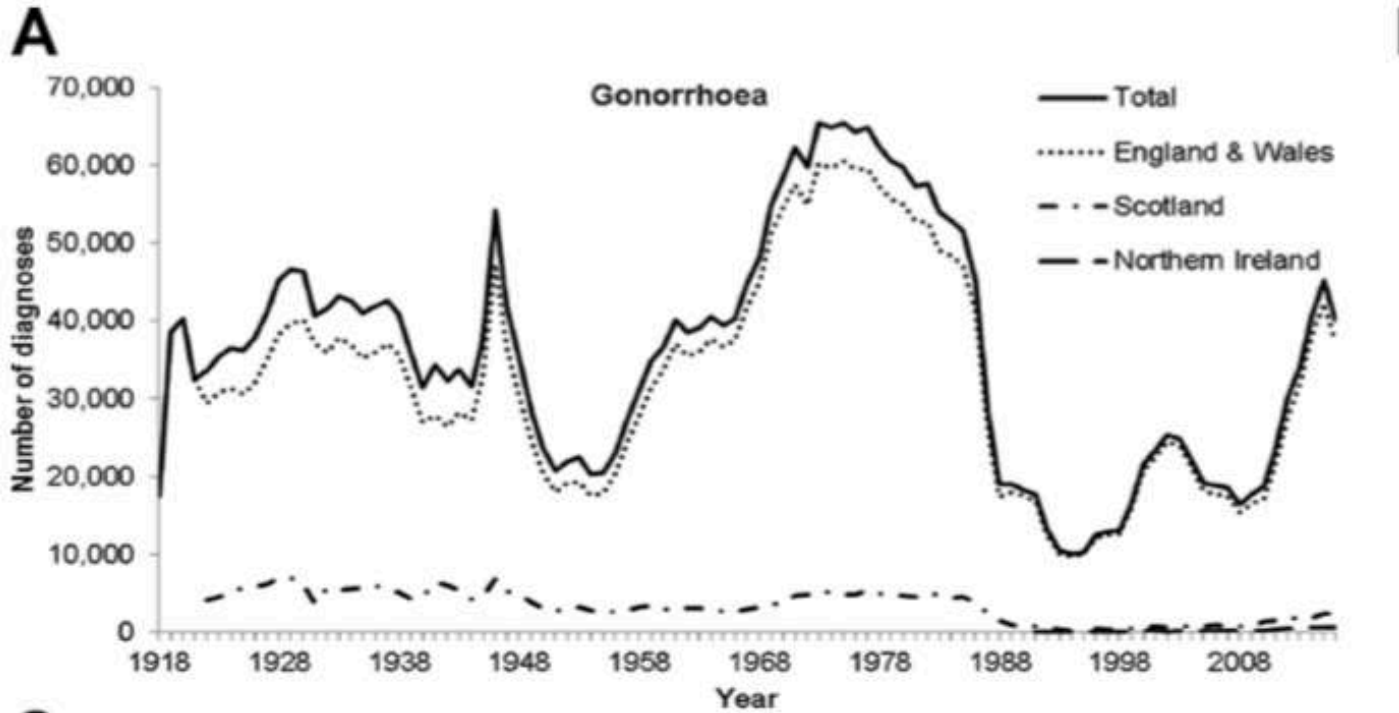
- PrEP altında enfekte oluyor
 - %89 vs %11
- PrEP başladığında enfekte olanlarda
 - %29 FTC direnci (M184V)
 - Sadece 2 kişide (K65R)
- Sonradan enfekte olanlarda
 - %2 FTC direnci (M184V)
 - <%1 TDF direnci

Korku II: Yan etki

- GİS:
 - Bulantı, kusma, yumuşak dışkılama, ishal : % 1-18
- TDF tubulopati
 - Yok
- KMD
 - Hafif azalma, özellikle omurgada

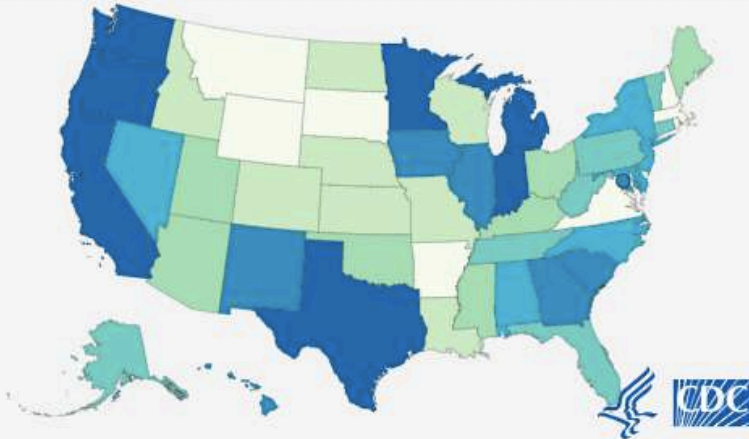
Korku III: Risk alma

CYBH sıklığındaki artış PrEP ile ilişkilendirilemez



Önlem alma tutumu

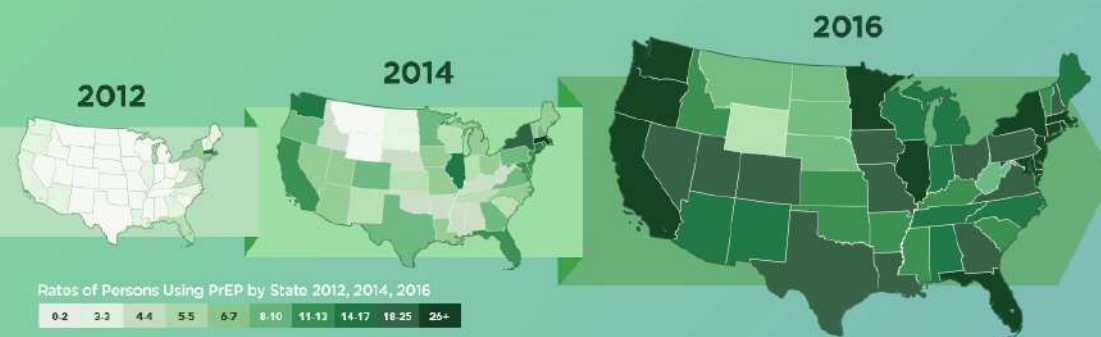
Percentage of Drivers and Front Seat Passengers Wearing Seat Belts, 2012



Source for national data: National Occupant Protection Use Survey (NOPUS), 2012. Source for state data: State Observational Survey of Seat Belt Use, 2012.



There were over **77,000 PrEP users** in 2016.



That's a **73% increase** year over year since 2012.

AIDSVU.ORG

AIDSVu

<https://www.cdc.gov/motorvehiclesafety/seatbeltbrief/index.html>,

<https://aidsvu.org/prep/>

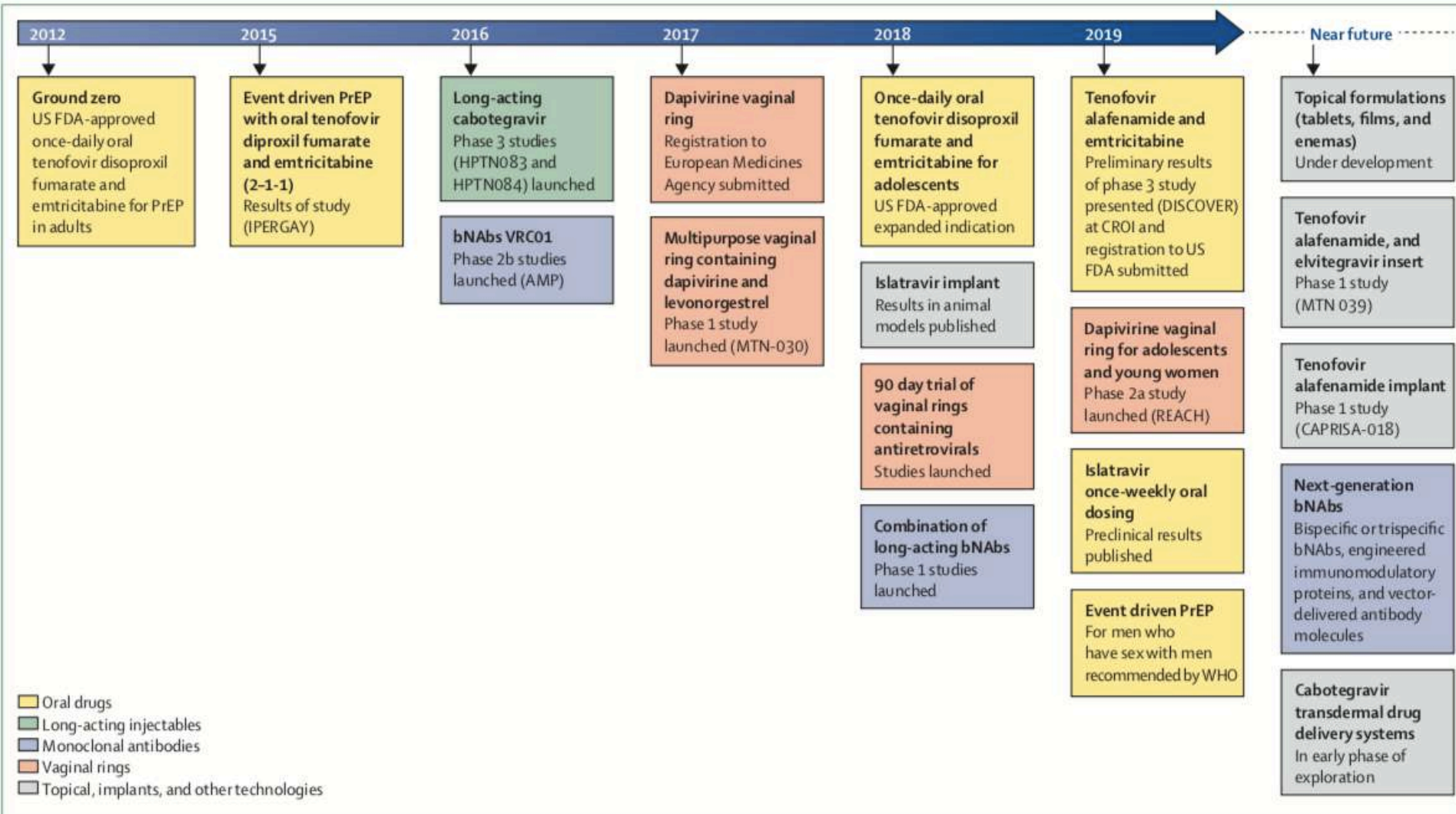
PrEP Engeller

- Hedef grubun PrEP bilgisi eksik
- Irk ve cinsiyet ayrımcılığı hala devam ediyor
 - PrEP alanların %11'i yeni tanı alanların %43'ü siyahi
 - PrEP alanların %13'ü, yeni tanı alanların %26'sı Latin
 - PrEP alanların %5'i, yeni tanı alanların %19'u cis-kadın
 - Trans kadınlar
- Lojistik eksikler
- Her CYBH viziti => PrEP şansı

PrEP Engeller

- Sağlık personeli bilgisiz, ilgisiz
- Cinsellik konuşulmuyor
- Sosyal güvenlik karşılamıyor

Gelecek



PrEP korunmada önemli bir yöntem



Pazaryeri, Bor, Niğde