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BACKGROUND

UNAIDS targets aim to reduce new HIV infections below 370,000 by 2025. However, there were 1.3 million new HIV infections worldwide in 2022. Most international funding for treatment and prevention is allocated to countries in Southern/East Africa, with the highest prevalence of HIV. However, countries in West Africa, South America and Asia have significant HIV epidemics, but lower overall HIV prevalence. As shown in clinical trials and incidence surveys, PrEP with TDF/FTC needs to be given to at least 60 people at high risk of HIV transmission to prevent 1 new infection.

METHODS

- Epidemiological data were collected from the UNAIDS AIDSINFO 2022 database, which analyses country-level HIV data using the Spectrum model.
- Key variables were epidemic size, annual HIV infections, HIV-related deaths, ART coverage, PrEP coverage and MTCT.
- Results were supplemented by PUBMED/EMBASE searches and national reports.
- We separated countries with epidemics of >40,000 cases into higher- (>4.5%) and lower-prevalence (<4.5%) countries.

Worldwide, 62% of new HIV infections and 63% of HIV-related deaths are now reported in “lower HIV prevalence” countries outside Southern/East Africa.

RESULTS

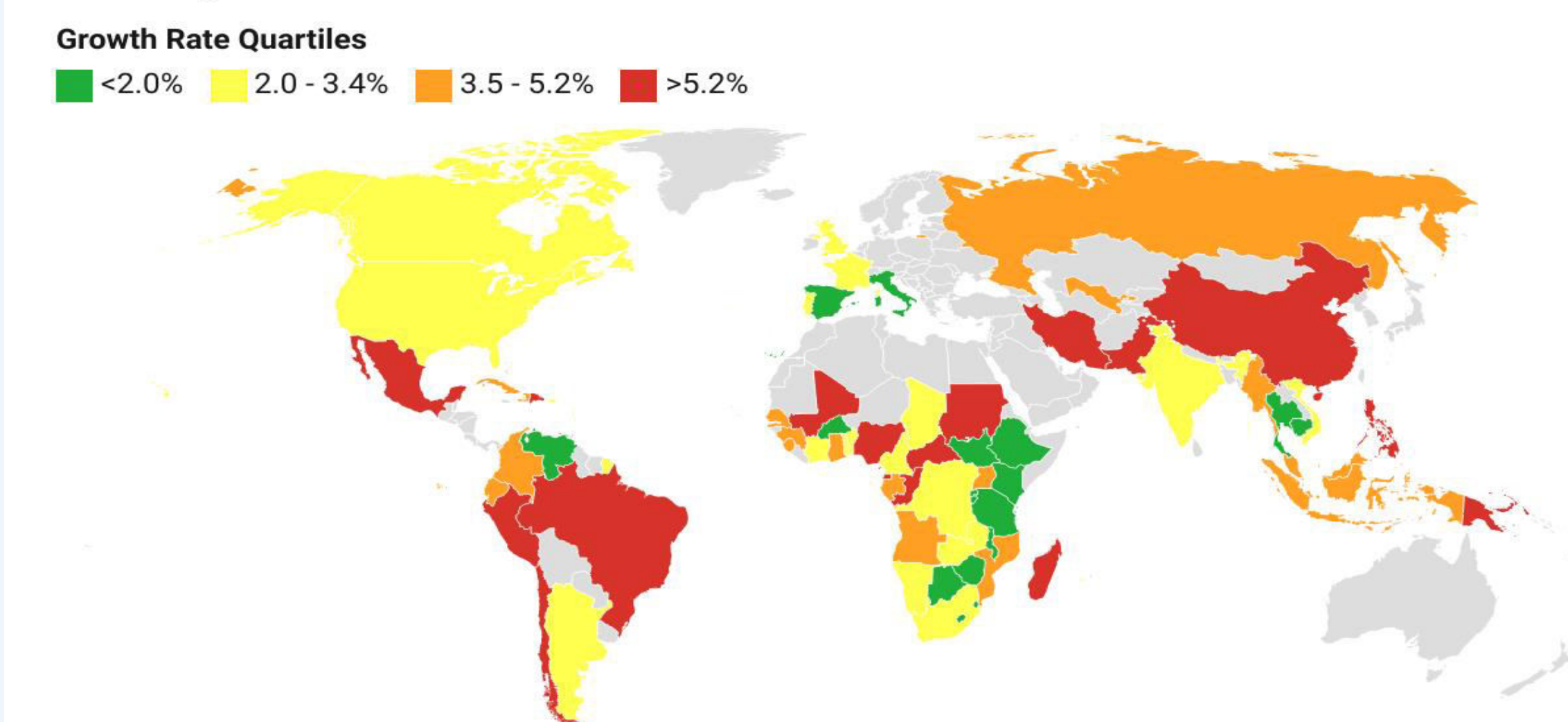
Overall, there were 19.5 million HIV infections in the 14 higher-prevalence countries in Southern / East Africa (53% of epidemic), versus 17.5 million HIV infections in the 54 lower-prevalence countries (47% of epidemic). In 2022, despite a smaller total epidemic size, lower prevalence countries showed more new HIV infections (770,000 vs 468,000), more HIV-related deaths (383,000 vs 225,000), higher rates of MTCT, (16% vs 9%), lower ART coverage (67% vs 83%), versus higher prevalence countries. The rate of HIV epidemic growth (new HIV infections / total epidemic size) was 4.4% in lower HIV prevalence countries versus 2.6% in higher prevalence countries. PrEP was used by 1.3 million in high prevalence countries versus 1.2 million in lower prevalence countries. However, the total use of PrEP is far below coverage for 74 million people required to optimise preventative efficacy. Combined revenue for HIV drugs of the three biggest providers for 2022 was \$27 billion. This is 16 times higher than the \$1.6 billion cost of providing generic TLD worldwide (based on CHAI estimate of \$42 PPPY).

CONCLUSIONS

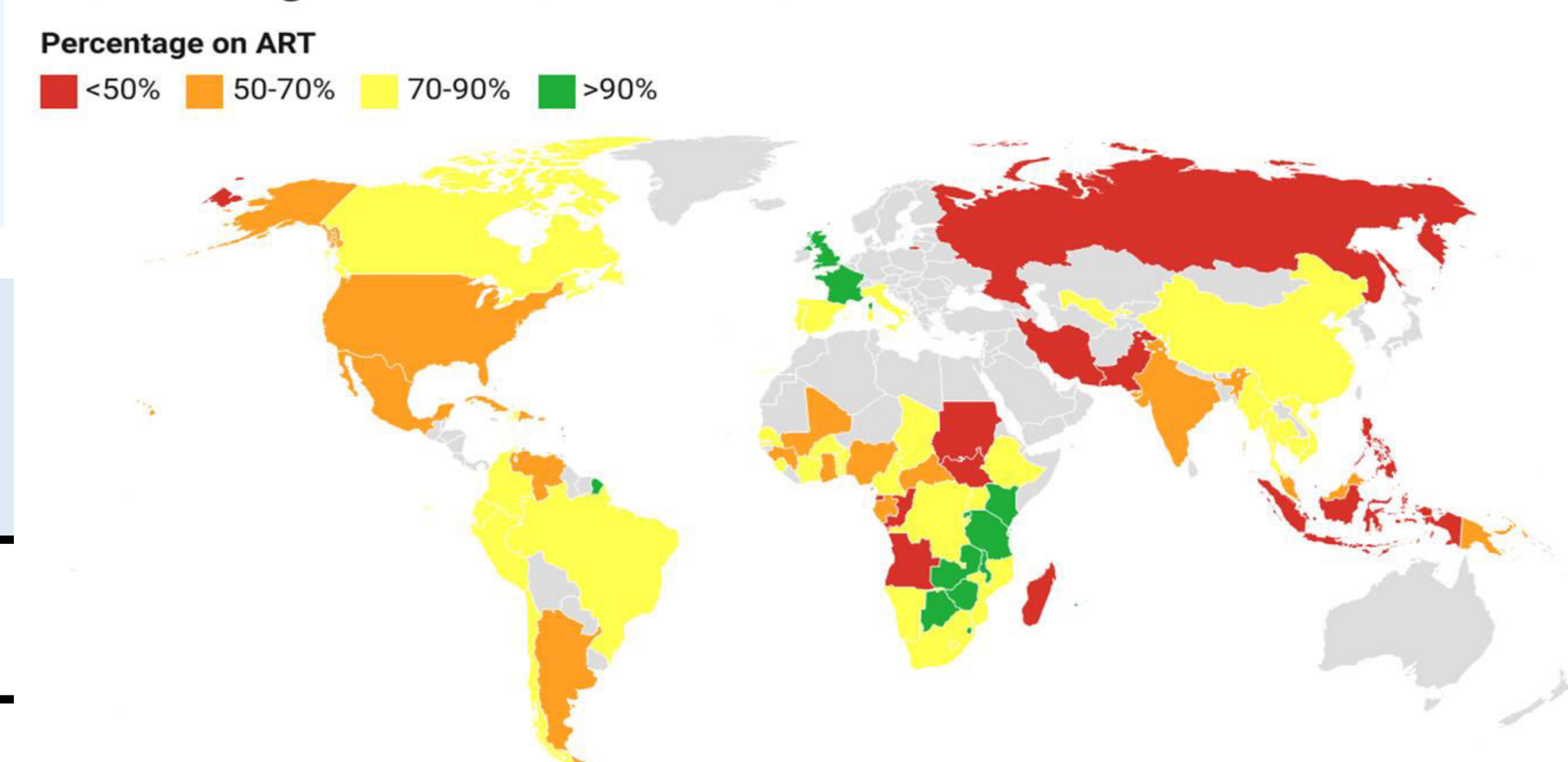
To achieve the UNAIDS 2030 elimination targets, ART and PrEP use must be upscaled significantly, especially outside Southern and East Africa. ART and PrEP needs to be made affordable worldwide, including new LA treatments like CAB-LA and lenacapavir. PrEP coverage should be expanded to 74 million people, versus 2.5 million currently treated.

	Higher prevalence >3.5% (n=14)	Lower prevalence <3.5% (n=54)	Ratio higher: lower
Epidemic size (n)	19,462,000	17,459,000	
ART coverage	82%	67%	1.21
Mortality	225,100	383,190	0.59
New infections	468,400	770,703	0.61
Annual epidemic growth	2.4%	4.4%	0.55
PrEP initiations	1,323,493 (n=12)	1,174,539 (n=42)	1.13
MTCT	9%	16% (n=43)	0.56

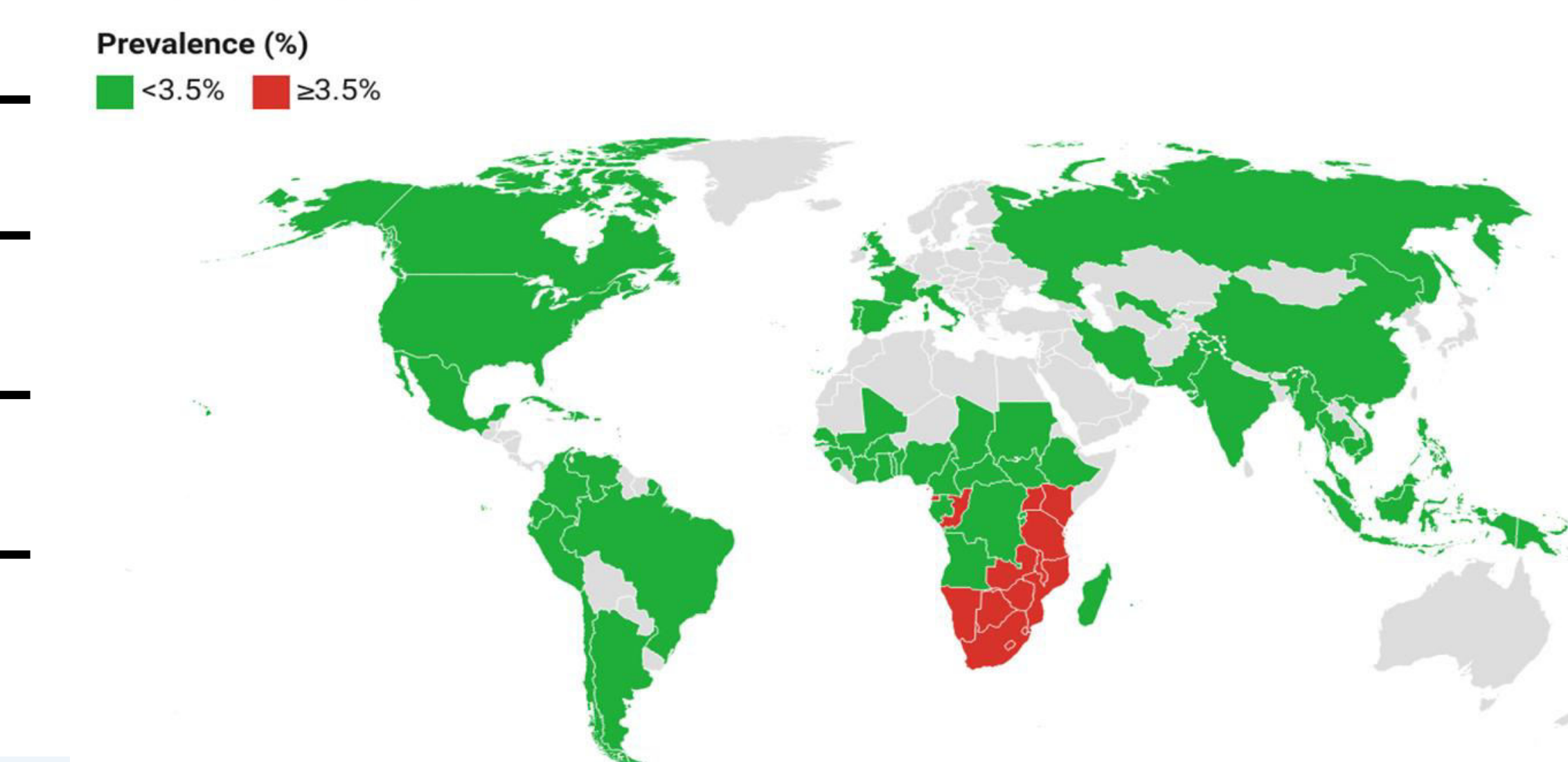
HIV Epidemic Growth Rate 2022



Percentage PLWH on ART 2022

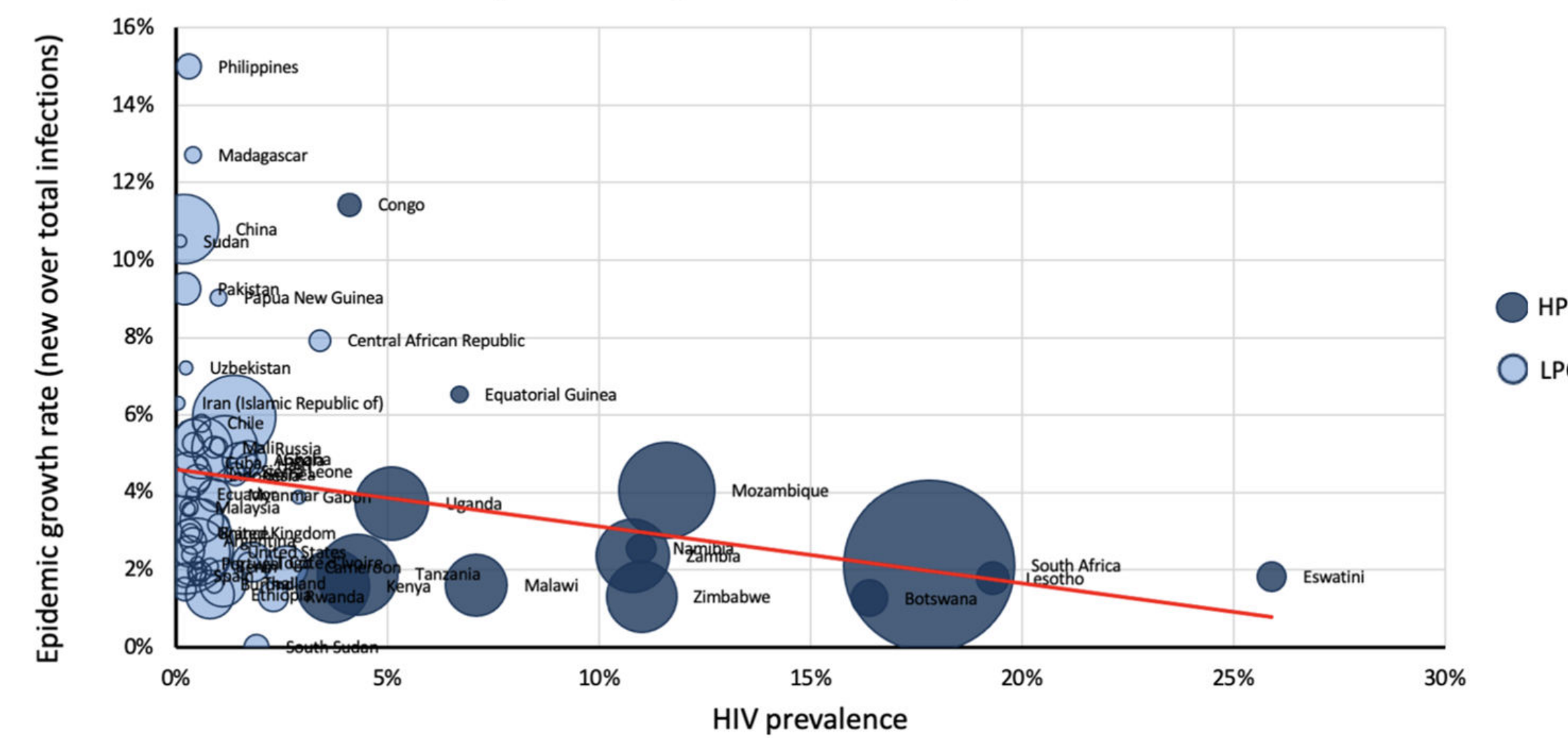


Prevalence of HIV 2022

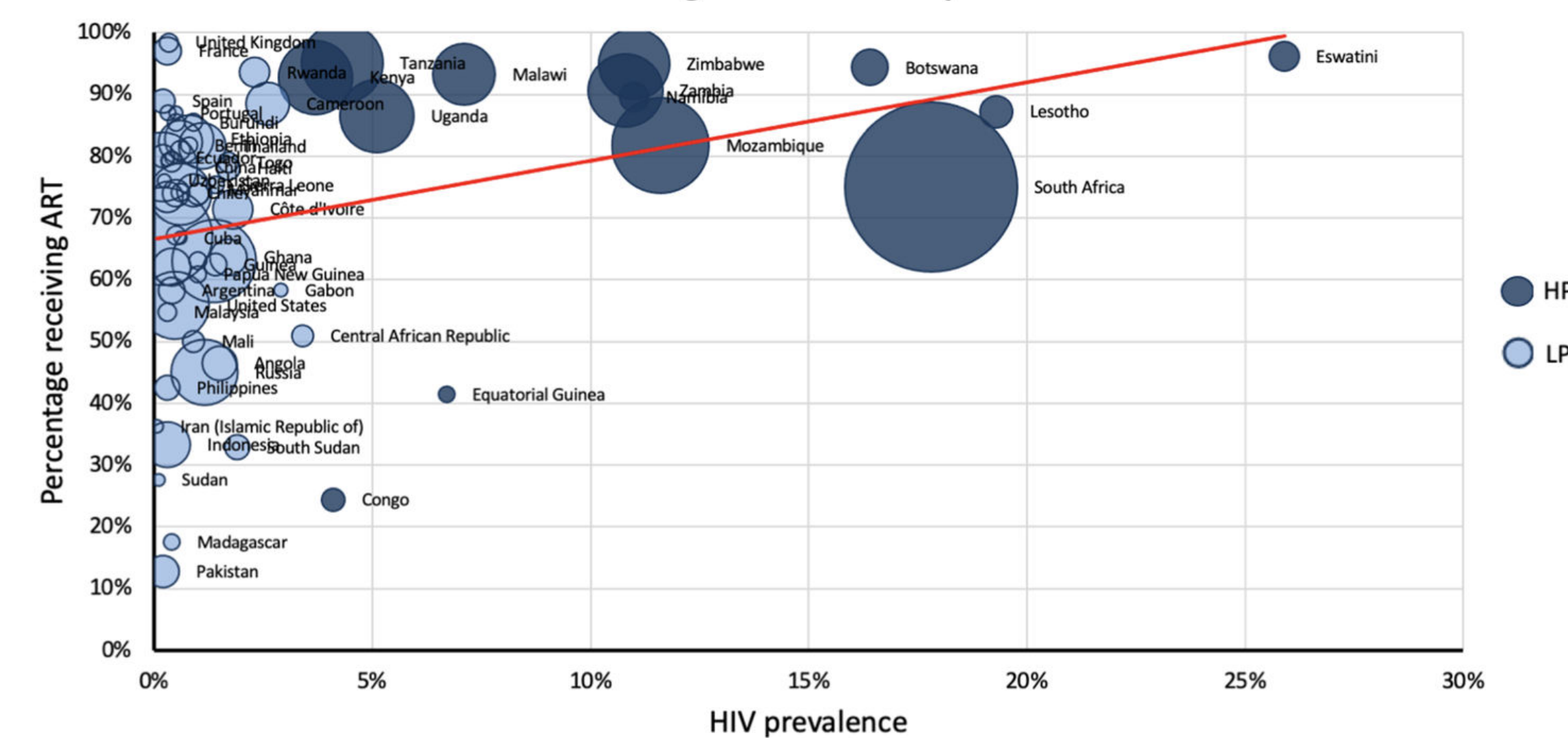


Source: UNAIDS • Created with Datawrapper

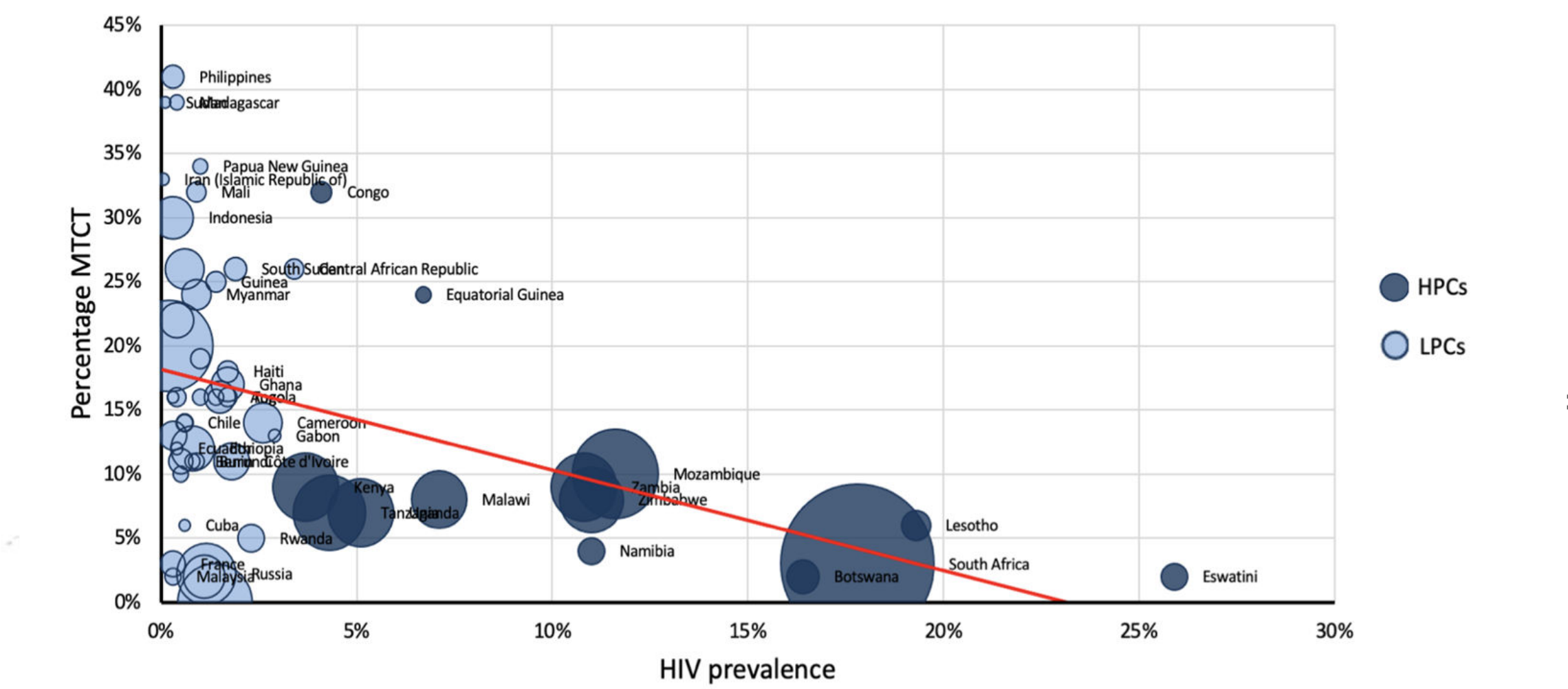
Epidemic growth rate vs prevalence



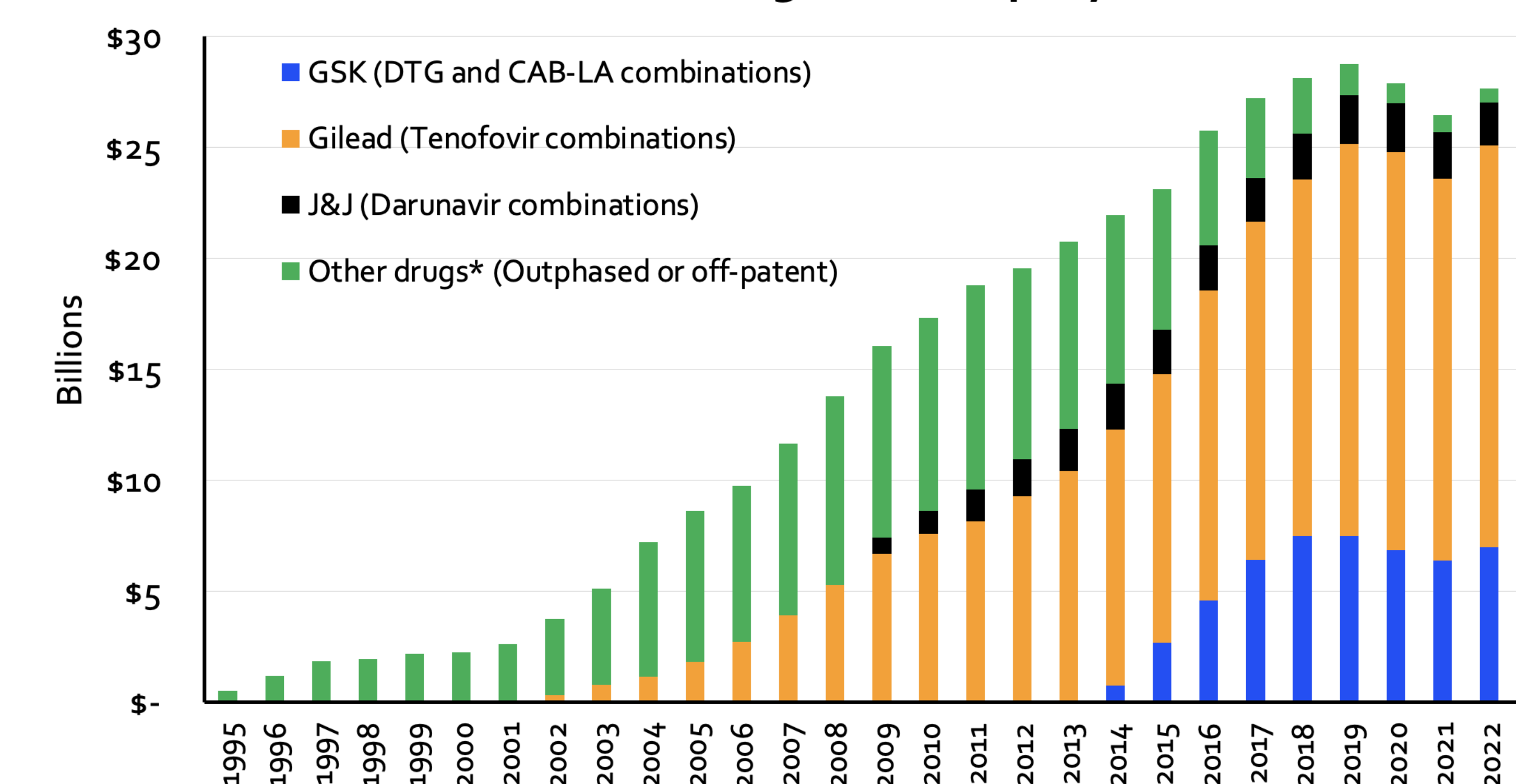
Percentage on ART vs prevalence



MTCT vs prevalence



Branded HIV drug revenues per year



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