

WHO & UNAIDS ANNUAL MEETING WITH PHARMACEUTICAL COMPANIES AND STAKEHOLDERS

"GLOBAL FORECASTS OF ANTIRETROVIRAL DEMAND FOR 2014-2018 AND PROJECTION MODELLING FOR NEW ANTIRETROVIRAL FORMULATIONS"



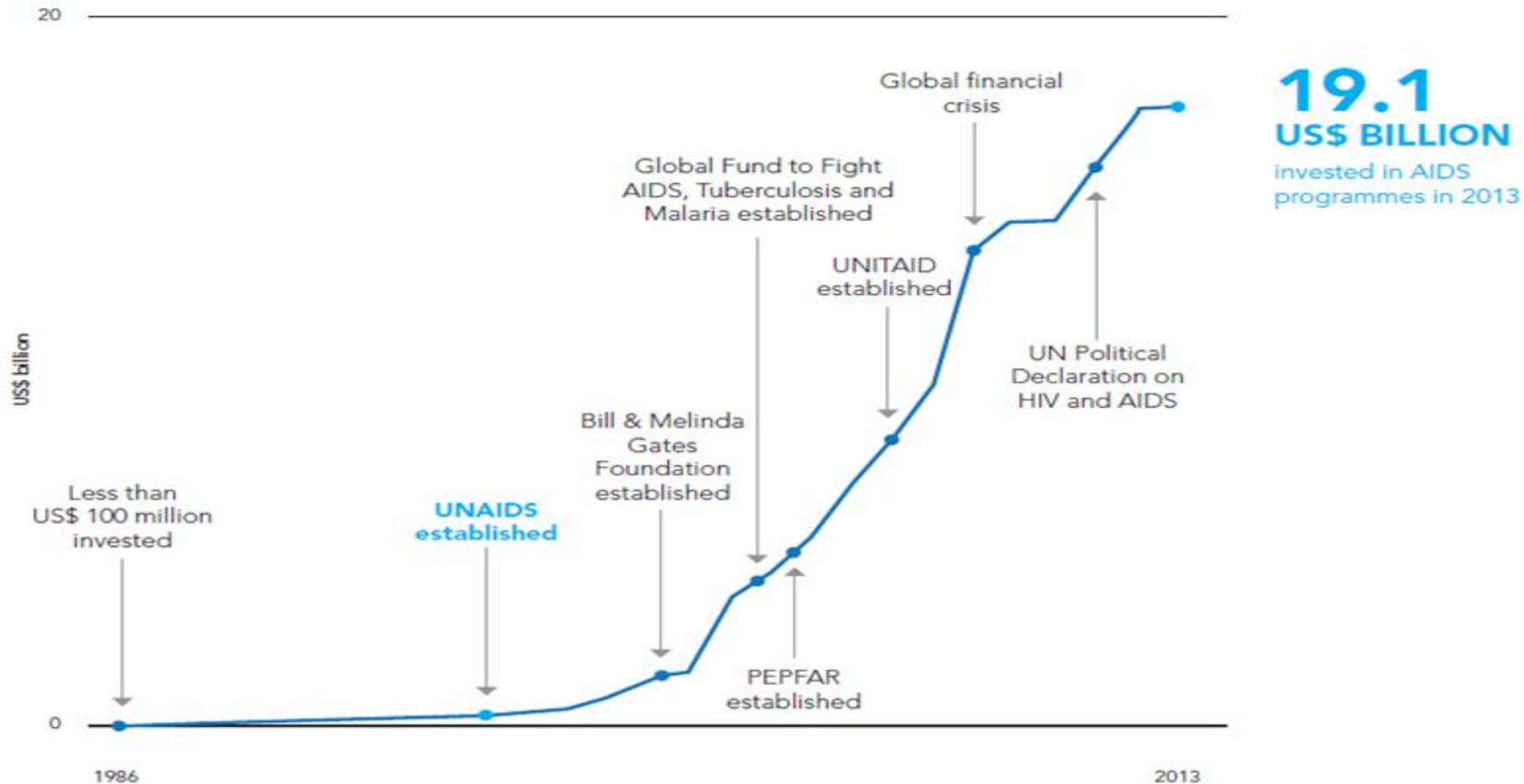
INTERNATIONAL AND DOMESTIC FINANCIAL OUTLOOK FOR ART PROGRAMMES IN LOW- AND MIDDLE-INCOME COUNTRIES

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UNAIDS | SIE | EED

Zero new HIV infections.
Zero discrimination.
Zero AIDS-related deaths.



HIV/AIDS: An unprecedented financial response to contain, reverse and overcome a global public health threat.

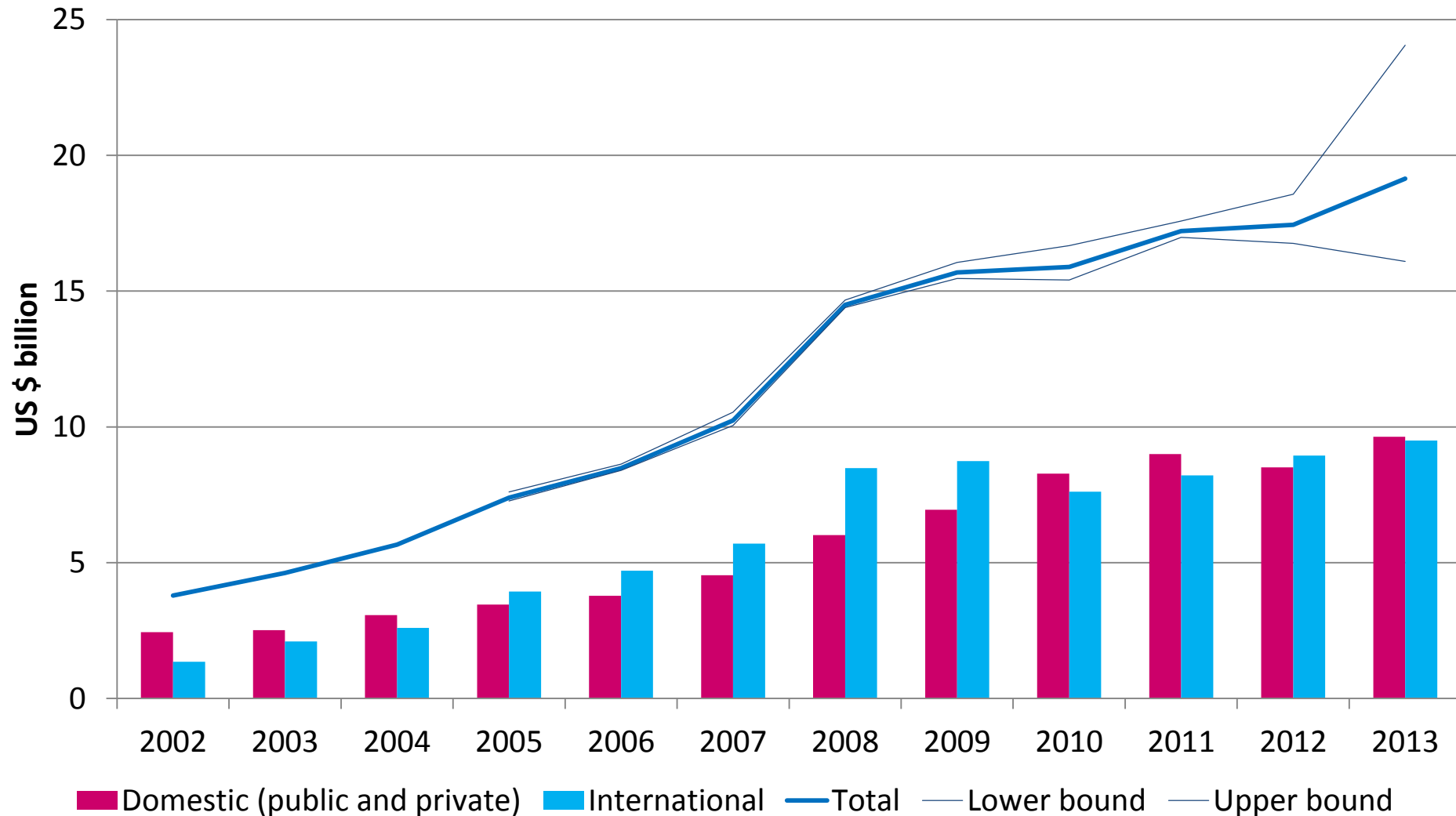


PEPFAR: the United States President's Emergency Plan for AIDS Relief

Source: UNAIDS estimates, UNAIDS-Kaiser Family Foundation reports on financing the response to HIV in low- and middle-income countries, GARPR 2014, philanthropic resource tracking reports from Funders Concerned About AIDS, reports from the Global Fund and UNITAID.

Resources available for HIV in low- and middle-income countries, 2002-2013

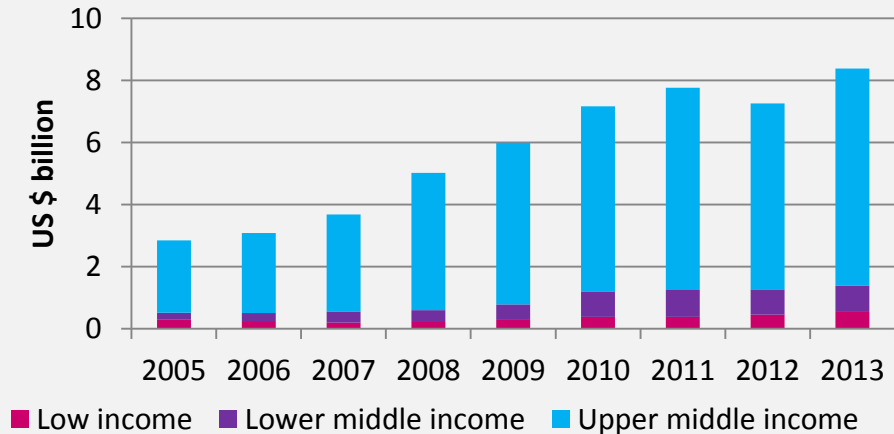
(Estimates for low- and middle-income countries)



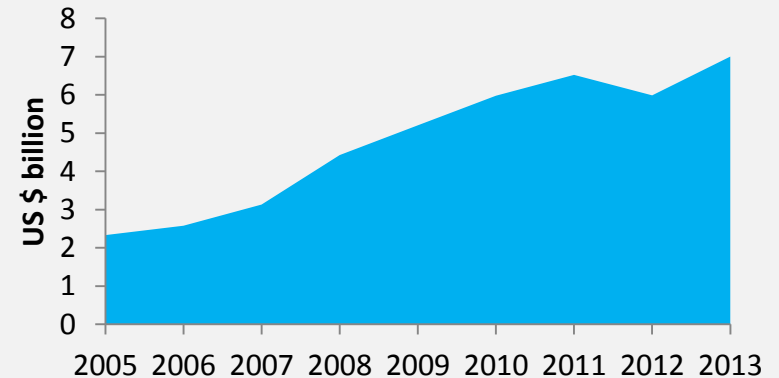
Trends in domestic public funding for HIV in low- and middle-income countries, 2005-2013

(Estimates for low- and middle-income countries)

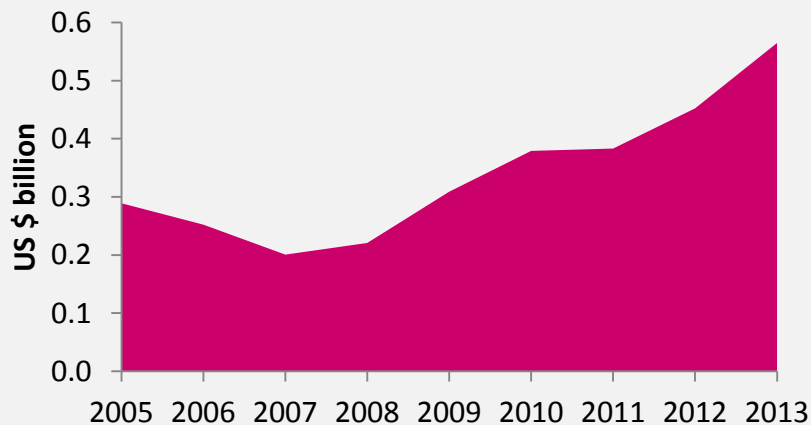
Low- and-middle income countries



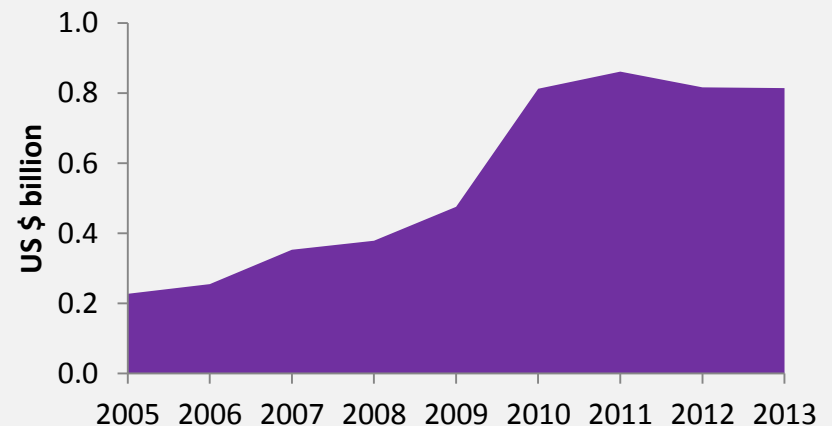
Upper middle income



Low income



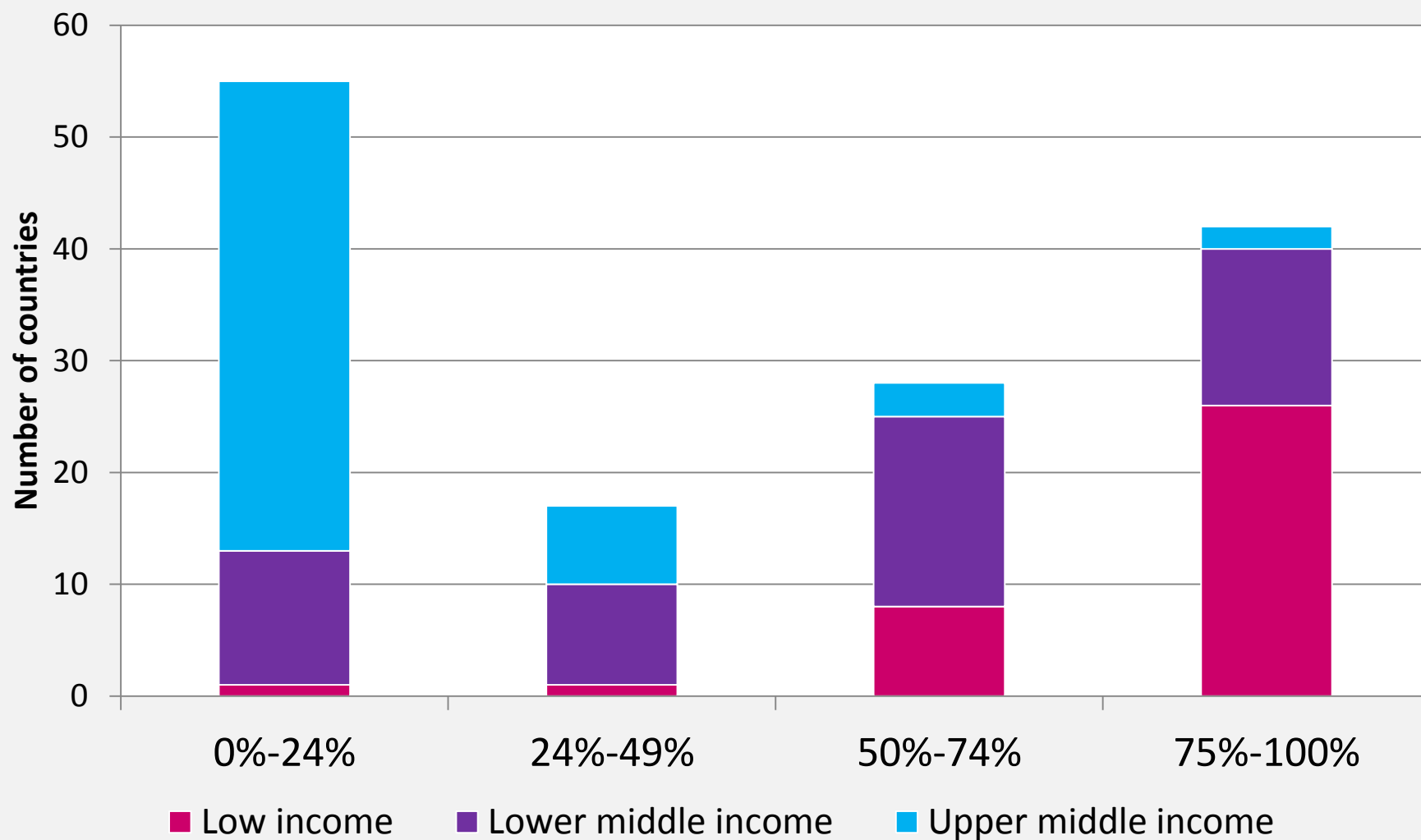
Lower middle income



Note: Based on 2012 World Bank classification of countries by income level

Number of countries according to the share of AIDS financing from international sources, 2013

Estimates for low- and middle-income countries

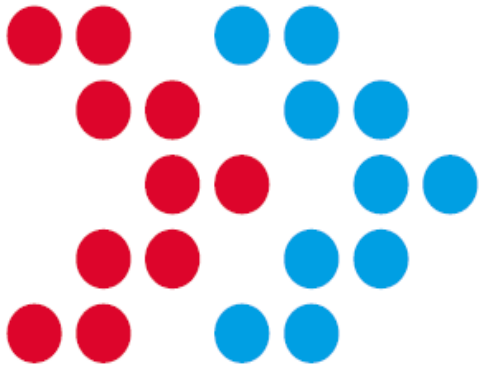


Note: Based on 2012 World Bank classification of countries by income level

What does it take ending the AIDS epidemic by 2030? (as a public health threat)

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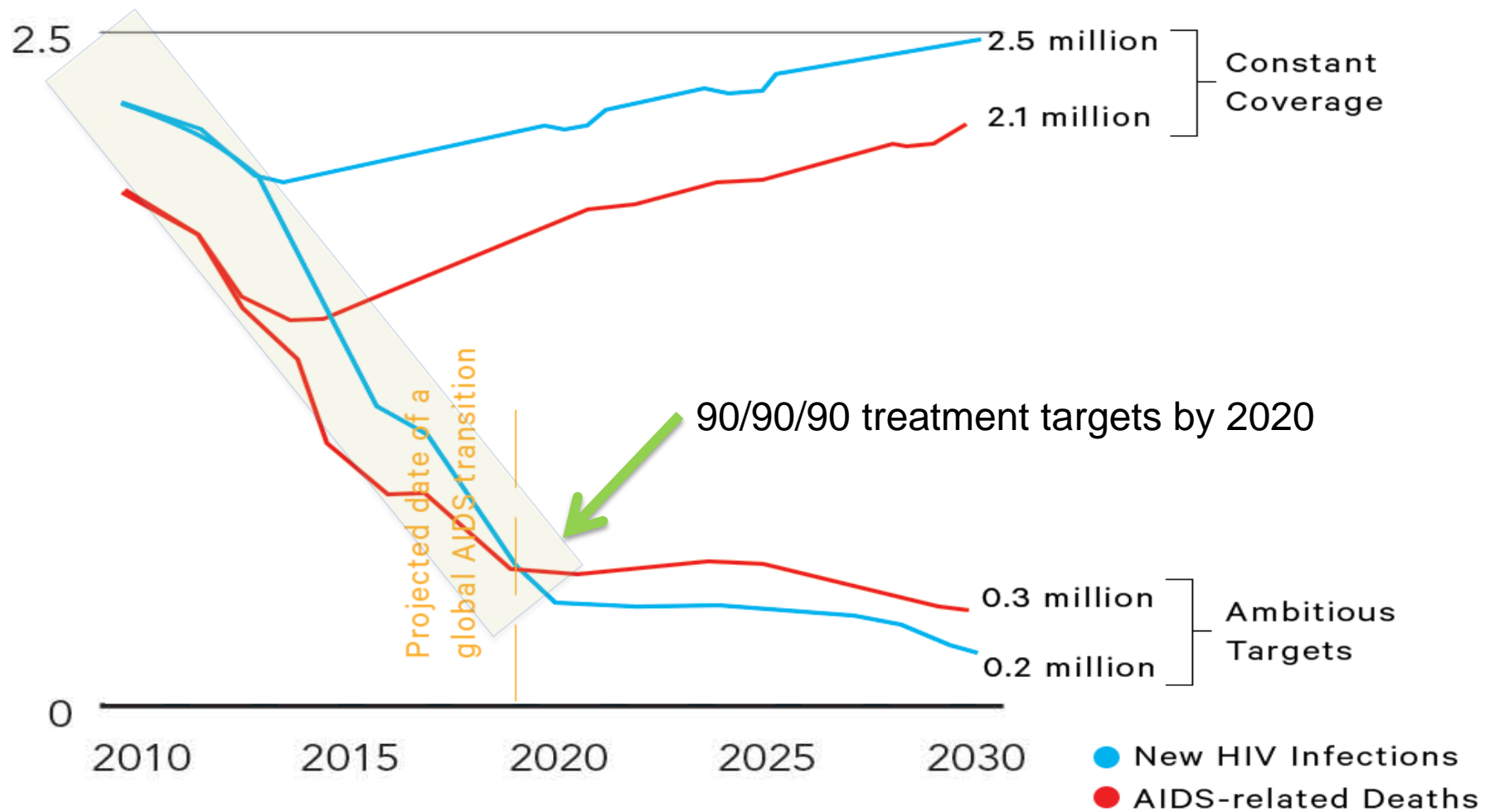
FAST-TRACK

ENDING THE AIDS EPIDEMIC BY **2030**

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Epidemic rebound if 2013 coverage is maintained or AIDS transition by rapidly scaling up HIV services



AIDS transition: low mortality but lower HIV infections
Decrease of HIV new infections: 60% due to ART

Fig. 6a New HIV infections in low- and middle-income countries, 2010–2030, with achievement of ambitious Fast-Track Targets, compared to maintaining 2013 coverage

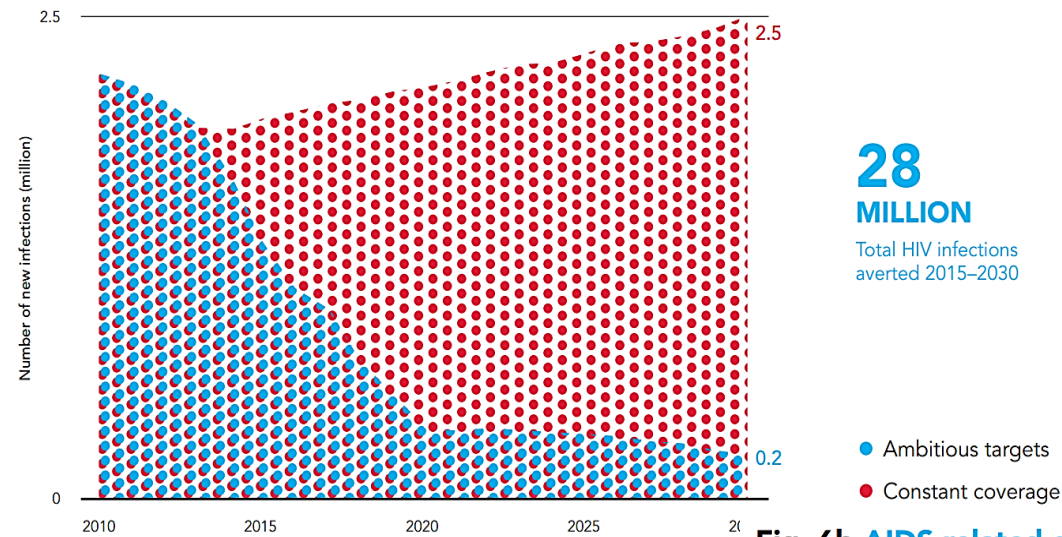
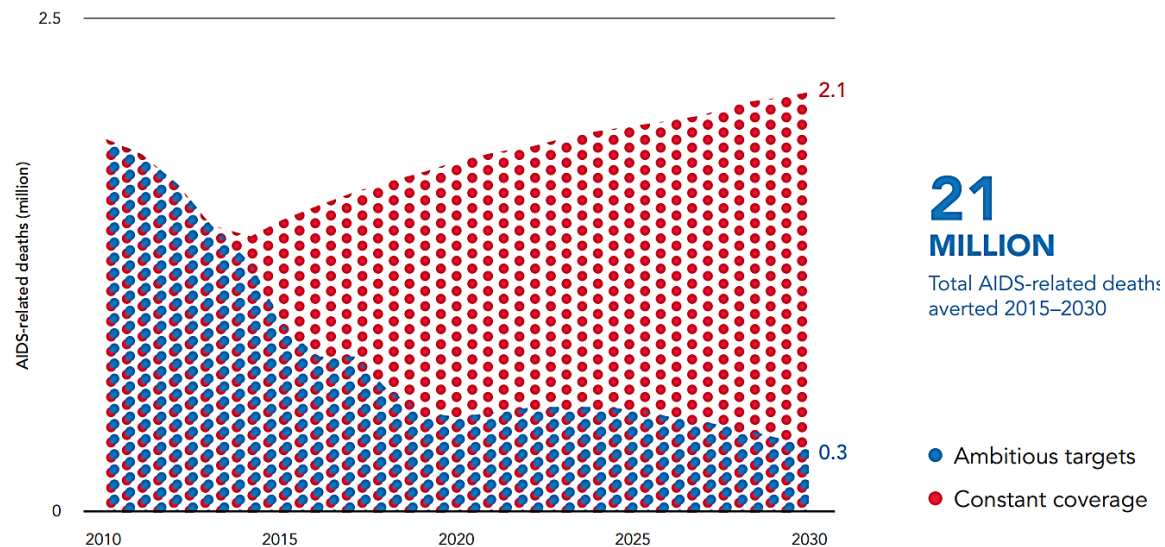


Fig. 6b AIDS-related deaths in low- and middle-income countries, 2010–2030, with achievement of ambitious Fast-Track Targets, compared to maintaining 2013 coverage



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Estimating resource needs for the 90-90-90 treatment targets by 2020 in Low and Middle Income Countries

Access to ART is crucial to meet the 90-90-90 targets.

It depends on expanding testing, ensuring linkage to care and strengthening health systems for a rapid scaling up on facility and community based delivery.

SERVICE COVERAGE TARGETS			Epidemic
	2020	2030	Types
Treatment care and support *			
Testing and counseling	35%	20%	All KP + VHP/HP
Pre-ART care	81%	90%	All
ART	81%	90%	All
Critical Enablers			
Community mobilization	80%	80%	HP/VHP
Synergies			
Teacher training	100%	100%	All

HP = High prevalence epidemics

VHP = Hyper epidemics

KP = Key populations

** Attaining the 90-90-90 targets depends, among other factors, on expanding Community Based Service Delivery from current 5% to a 30% of total provision of Care and Treatment.*

ARV Prices

Category	2015	2020	2030	Notes
<i>Prices of ARVs</i>				Consensus unit costs for ART used over all LMIC, for UMIC the unit costs are a multiple of the LMIC unit costs, with the ratio set at 2.74 in 2013 and reduced to 1.87 by 2030
1L	\$105	\$100	\$80	
2L	\$300	\$300	\$300	
<i>ARV regimen mix</i>				
% on 1L	95.8%	86.5%	85.5%	

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Service Delivery Costs

Service delivery costs	2015	2020	2030	Notes
Eastern Europe	\$ 1,692	\$ 1,020	\$ 999	<p><u>Community-based:</u></p> <p>Based on results from Tb studies, 48% decline in cost; Group says current mix is 90-95% FB, move to 70% FB</p> <p><u>Economies of Scale for Facility-based:</u></p> <p>Recommend applying PEPFAR results, pro-rating estimated 28% reduction when double capacity from 5,000 to 10,000 patients (here, we go from 10m in 2012 to 24m in 2020, then 25m in 2030, so a 42% reduction by 2030)</p>
East Asia and Pacific	\$ 139	\$ 84	\$ 82	
Latin America and Caribbean	\$ 1,301	\$ 784	\$ 768	
North Africa and Near East	\$ 1,358	\$ 819	\$ 802	
South Asia	\$ 32	\$ 19	\$ 19	
Sub-Saharan Africa	\$ 297	\$ 179	\$ 175	

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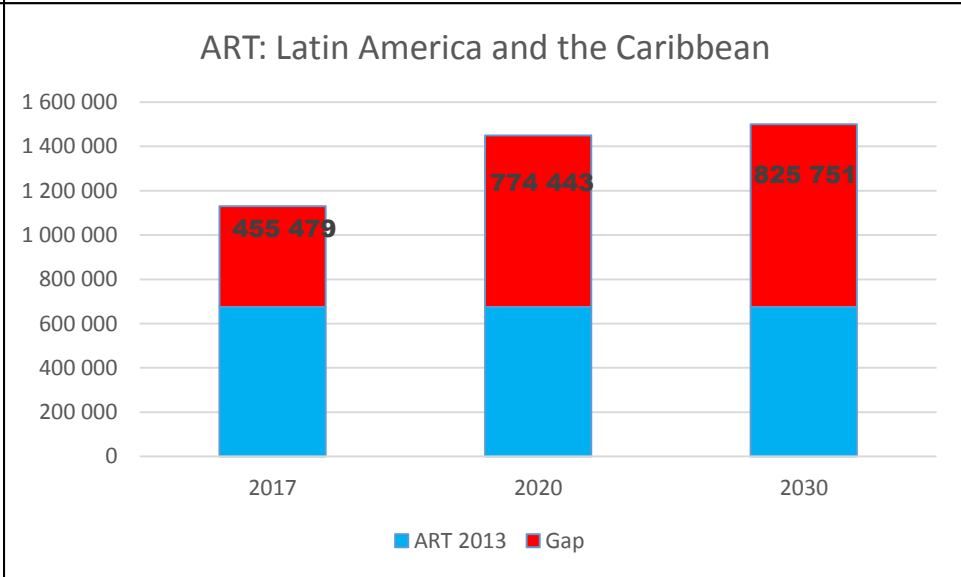
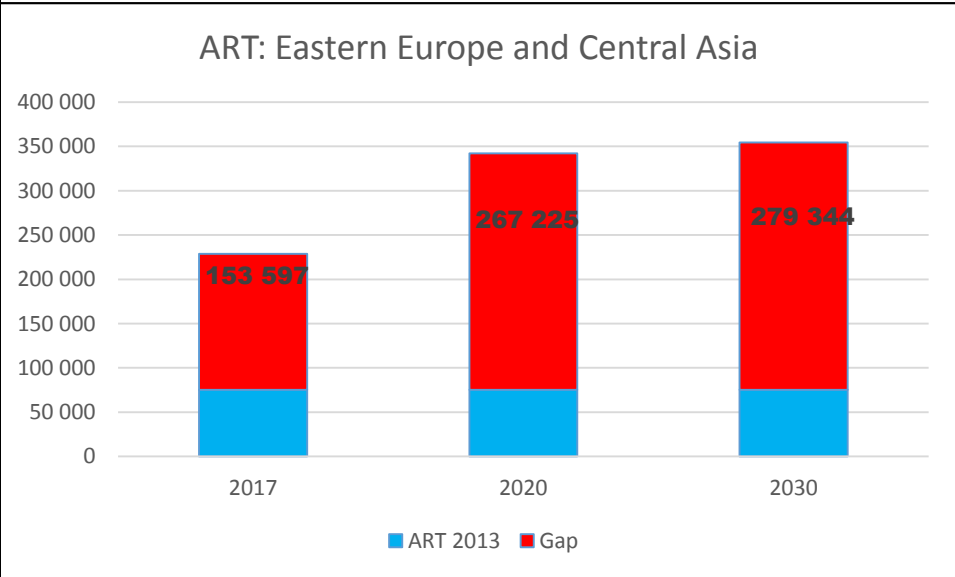
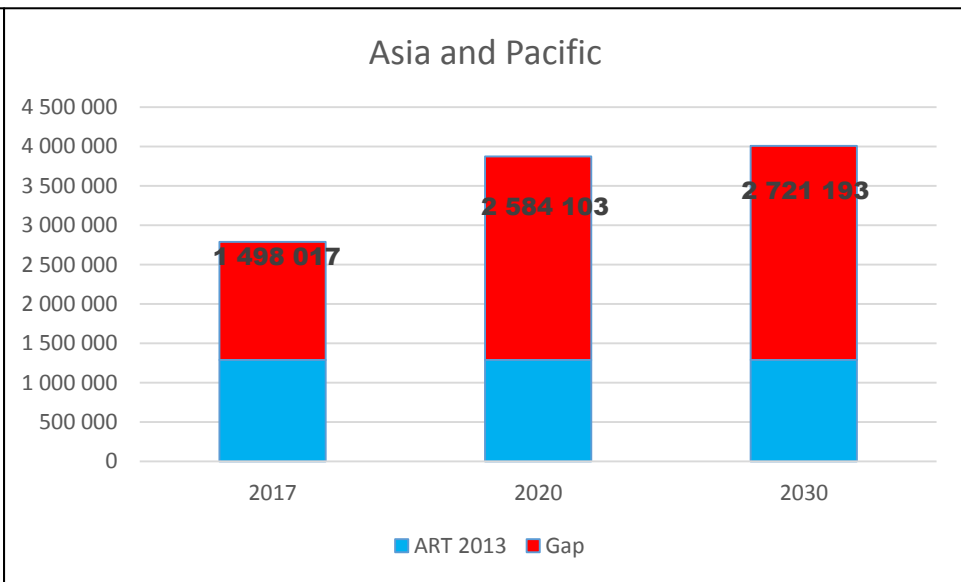
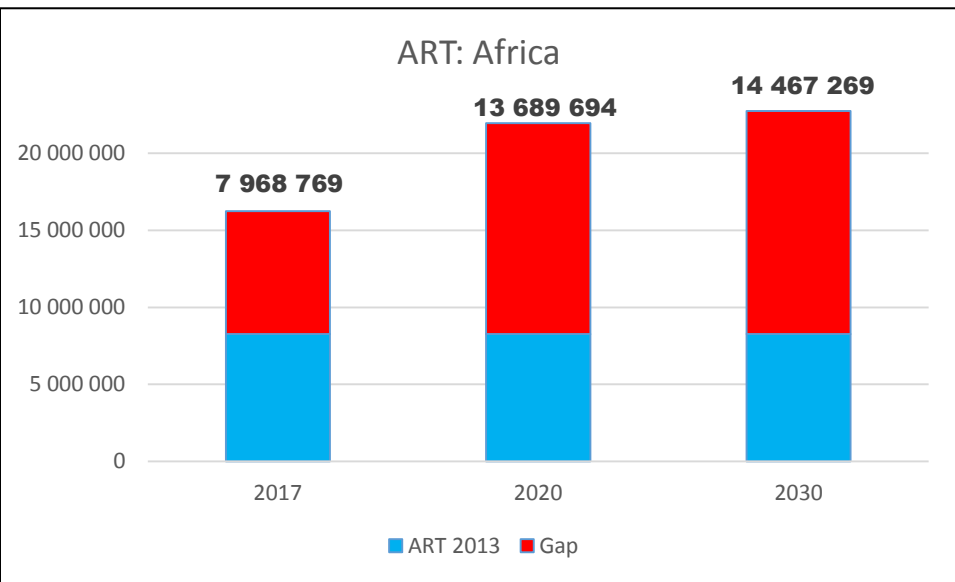
Share of People on ART by Line

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
% of people on first line treatment													
	96.4	95.8	93.6	91.3	89	87.8	86.5	86.3	86	85.7	85.5	85.5	85.5
% of people on second line treatment													
	3.5	4	6	8	10	11	12	12	12	12	12	12	12
% of people on salvage treatment													
	0.1	0.2	0.4	0.7	1	1.2	1.5	1.7	2	2.3	2.5	2.5	2.5

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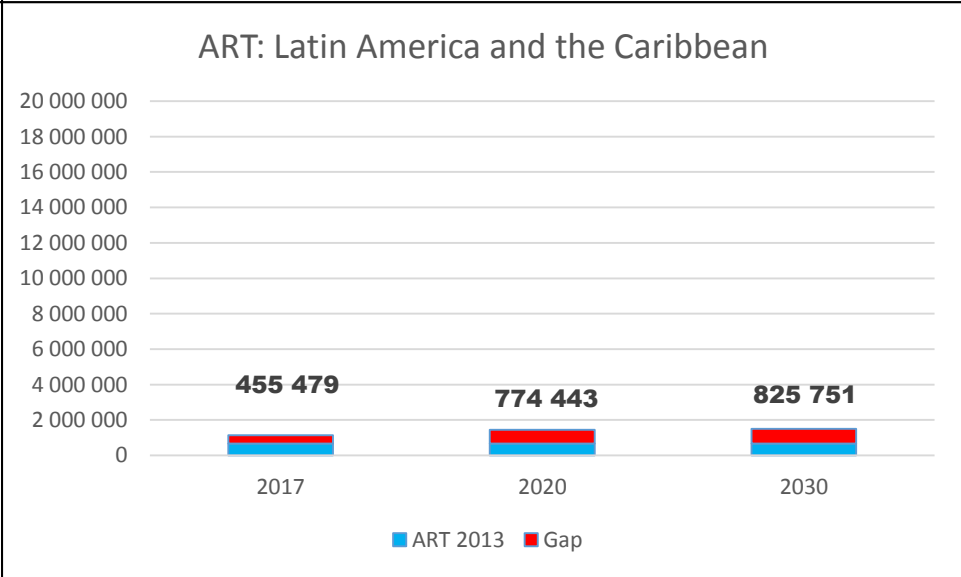
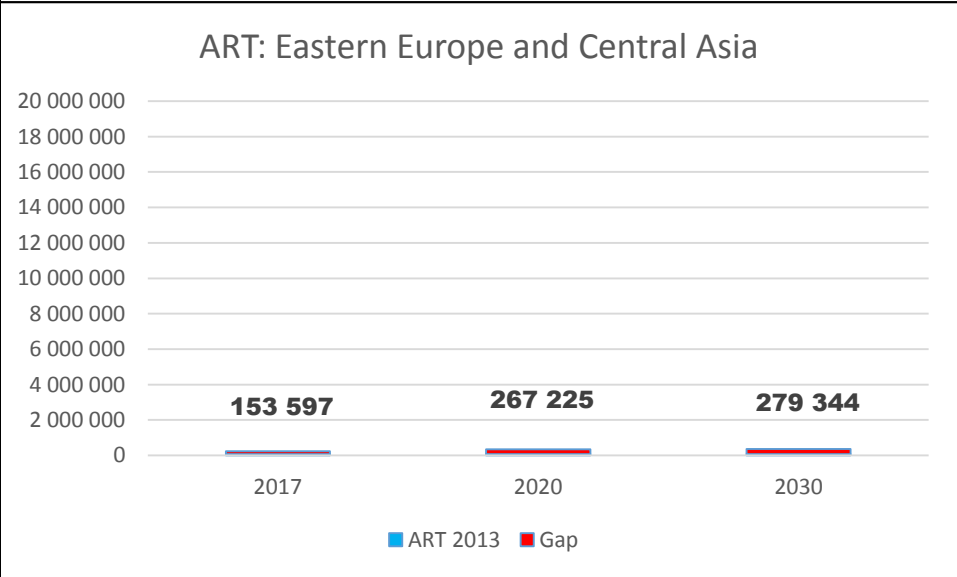
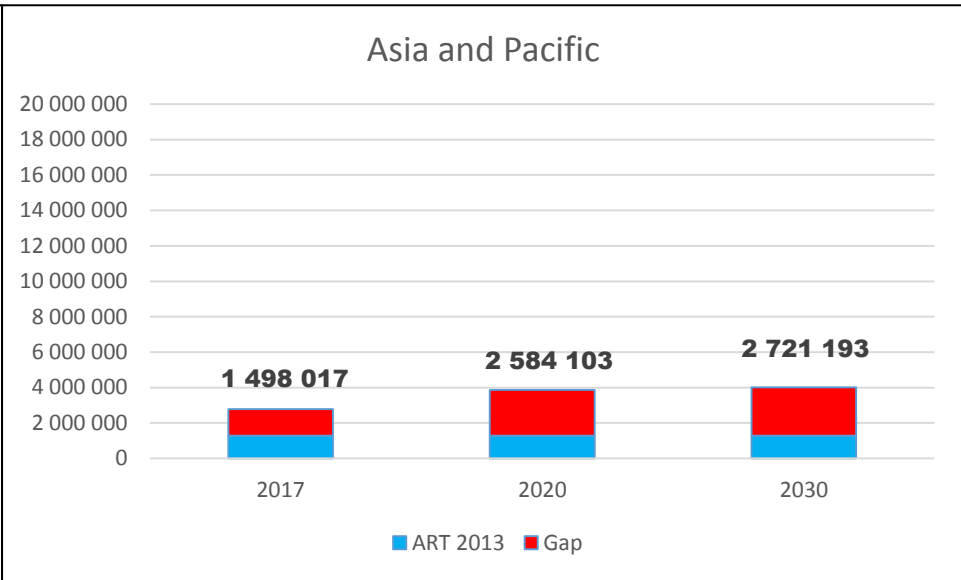
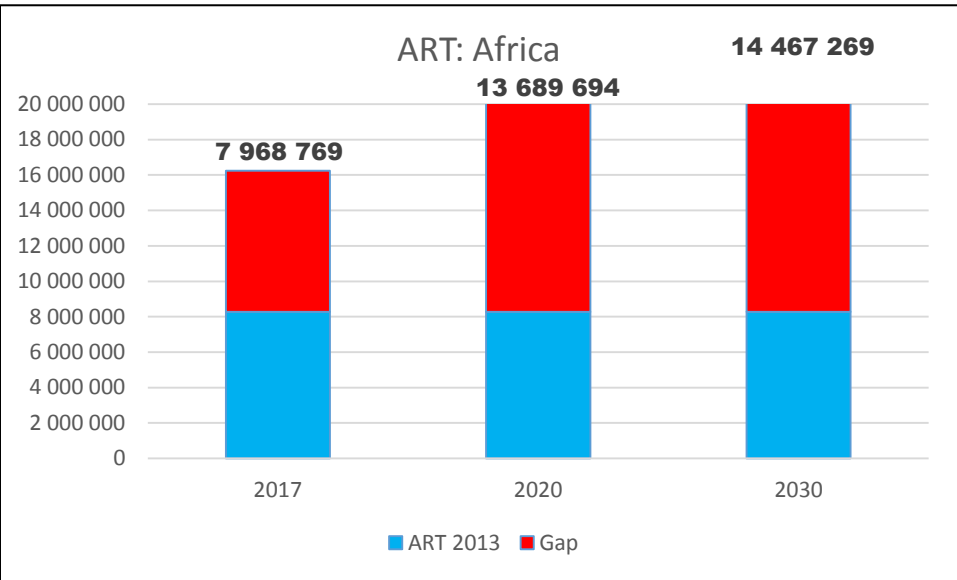


Projected Number of People on ART: Comparing 2013 to targets for 2017, 2020 and 2030

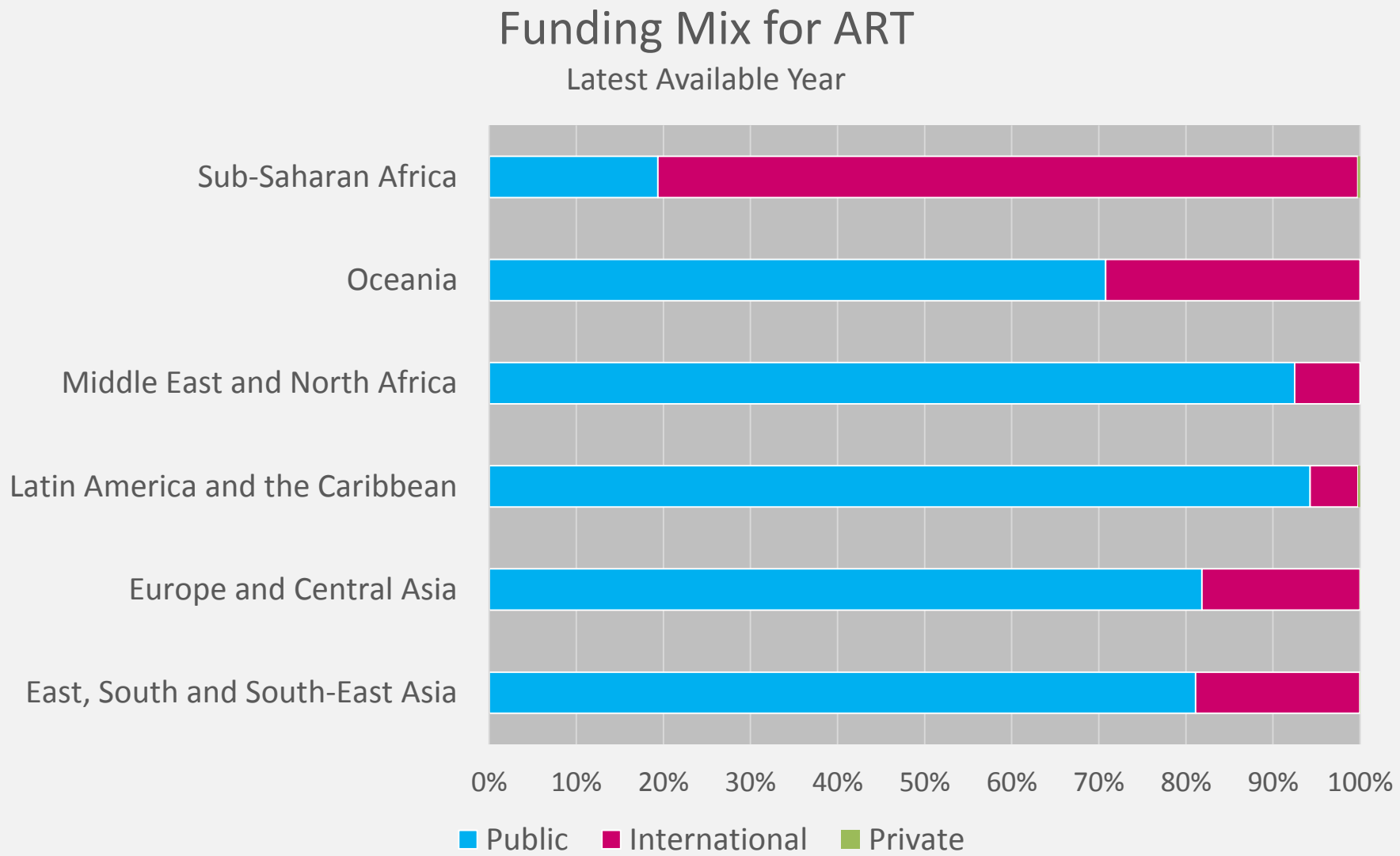


Number of People on ART:

Comparing 2013 to targets for 2017, 2020 and 2030



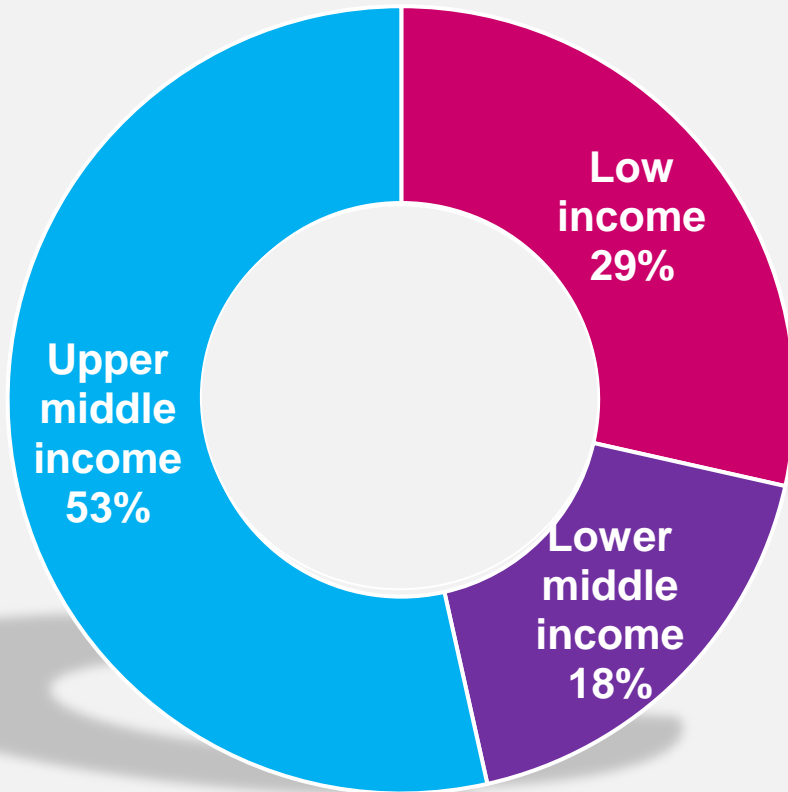
Funding Sources for Antiretroviral Treatment



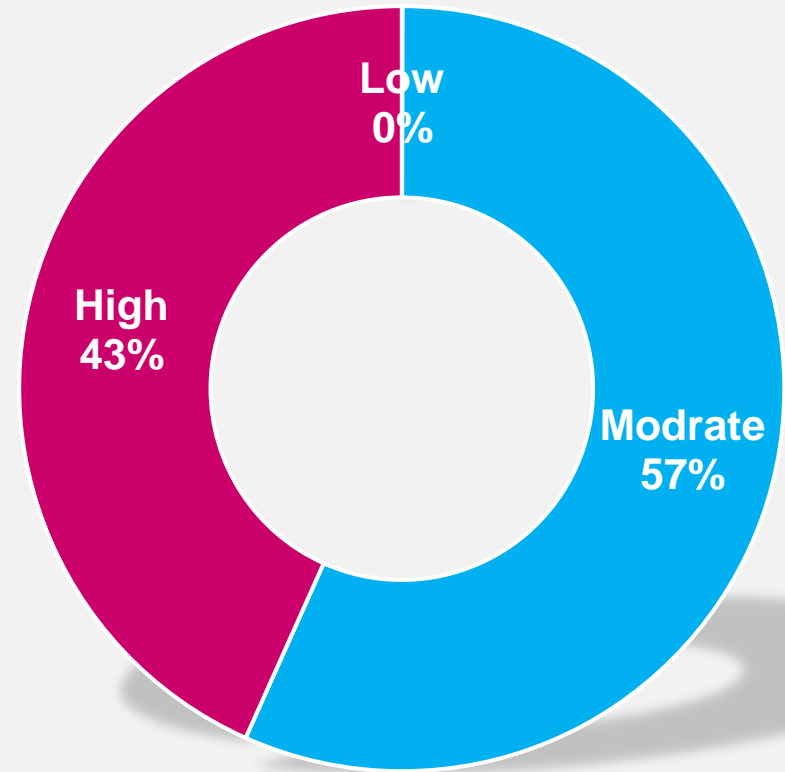
Current spending on ART in low- and middle-income countries by income and epidemic level

Latest available year

Spending on ART by Income Level



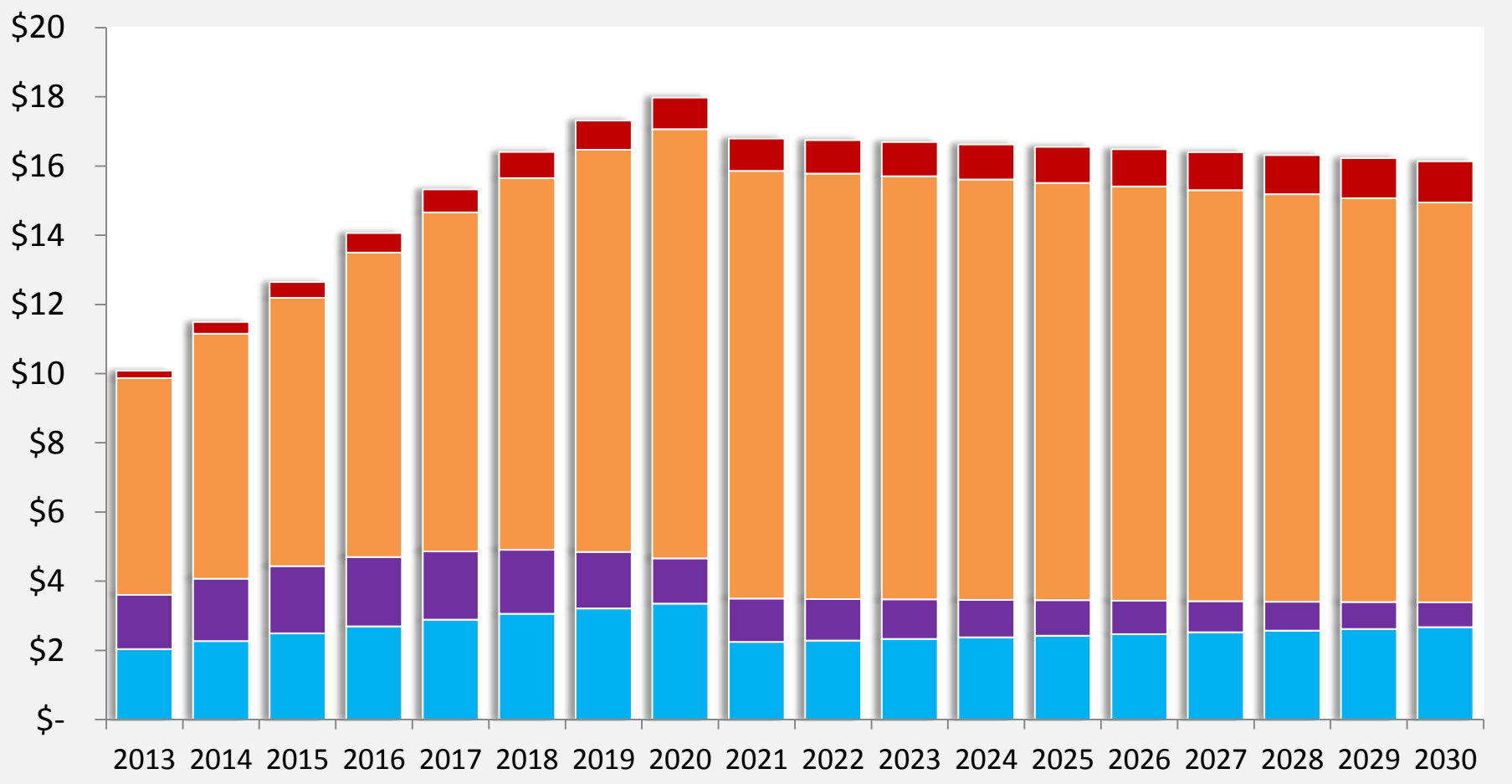
Spending on ART by Epidemic Level



Resource Needs for Treatment, Care and Support

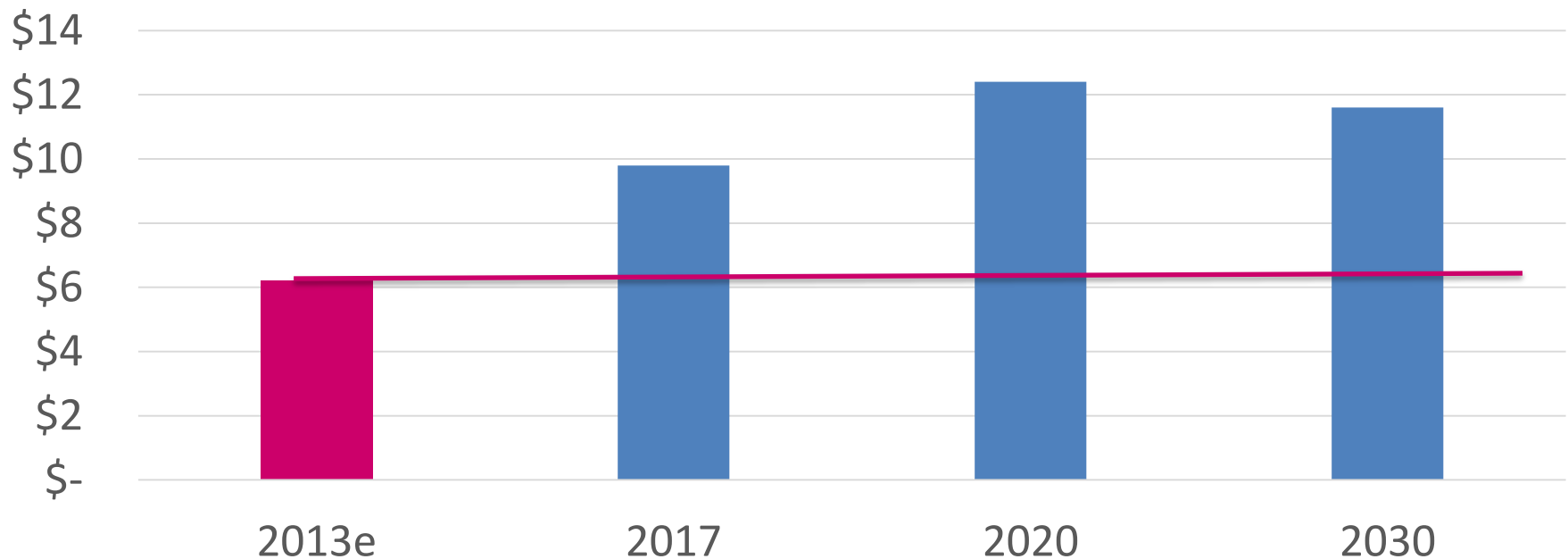
US\$ Billions

- Testing and counseling
- ART
- Pre-ART care
- Community Mobilization



Antiretroviral Treatment: Financing gap Comparing 2013 coverage level and targets for 2017, 2020 and 2030

Antiretroviral Treatment: Estimated Expenditures and Future Resource Needs (US\$ Billion)



2013e= Based on reported number of people on ART and average cost of ARV.

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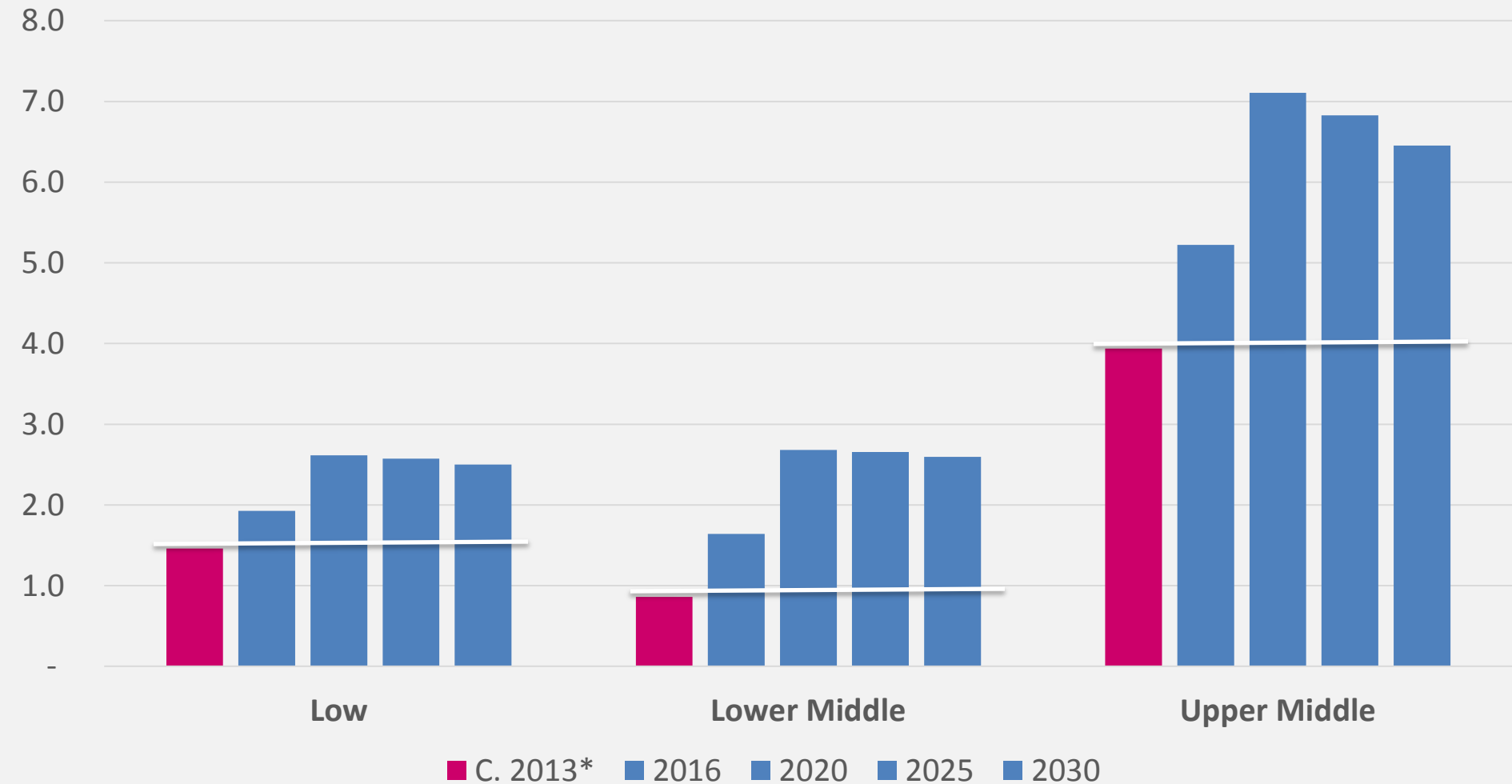


Antiretroviral Treatment:

Current spending & resource needs for low- and middle-income countries

US\$ Billion

ART Spending (2013) and Resource Needs by Income Level

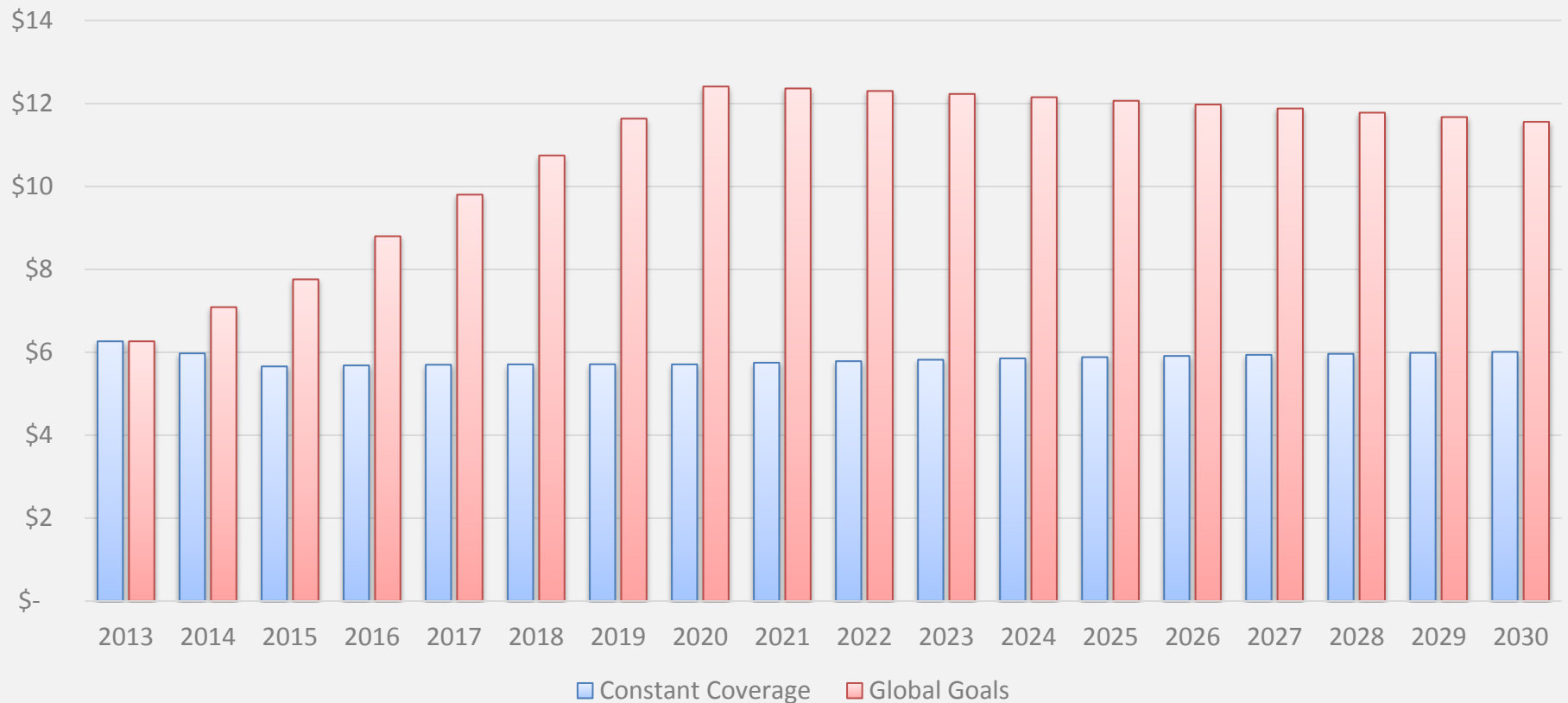


Antiretroviral Treatment:

Projected expenditure on ART to maintain current coverage rates versus attaining 90/90/90 targets

US\$ Billion

Resource Needs for ART at Constant Coverage as of 2013
versus Expanding Coverage to Meet Ambitious Targets
US\$ Billions



How to finance aggressive scale up of ART

1. Increased efficiencies:

- **Lower prices of commodities (ARV and tests)** especially in UMIC.
 - Target to halve the price differential between LIC and UMIC.
- **New service delivery model**
 - Decentralised and community based delivery of ARVs
 - Community and home based testing
 - Move from conventional to point of care CD4 count, viral load count (VL), early infant diagnosis (EID); use CD4 count for monitoring rather than VL

2. **Integration into national health financing schemes** – UHC benefits packages

- Depends on burden of disease, service delivery models, dependency on international aid, strength of public health system financing

Integration of HIV into National Health Insurance Fund (NHIF), Kenya

- For prospective cohorts of persons newly acquiring HIV
 - Include prospective HIV treatment in the NHIF -requires high contributions now, but these will come down steeply if HIV incidence declines as projected
- **For people currently on ART:**
 - Lifetime costs of services ~US\$16.3bn (32% of annual GDP today)
 - For ART coverage 60% - NHIF liability 20 times current revenue (or 19% GDP)
- Paying for people currently on ART:
 - Issuing a bond to spread cost of meeting HIV liability over time
 - Fund ARTs within NHIF through the current HIV/AIDS trust fund

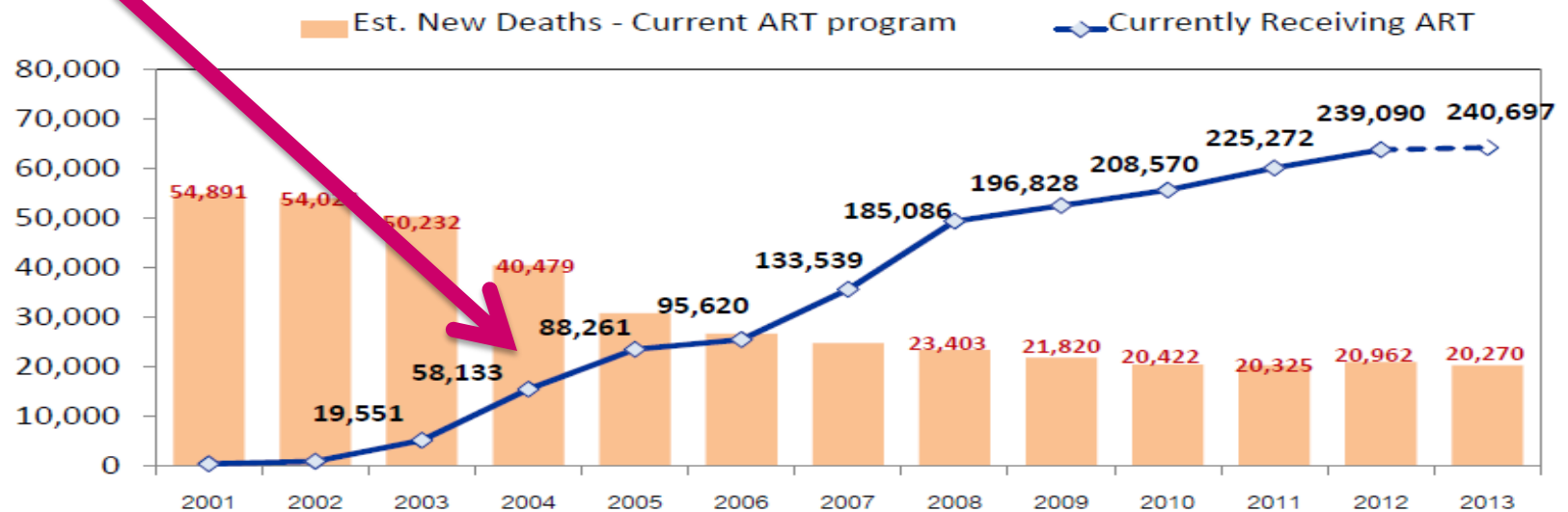
Integration of HIV into UHC benefits package

The case of Thailand

Impact of ART-UC on the Reduction of New AIDS Deaths

Estimated New AIDS Deaths: ART Program vs No ART Program, 2001-2013

ART in UHC



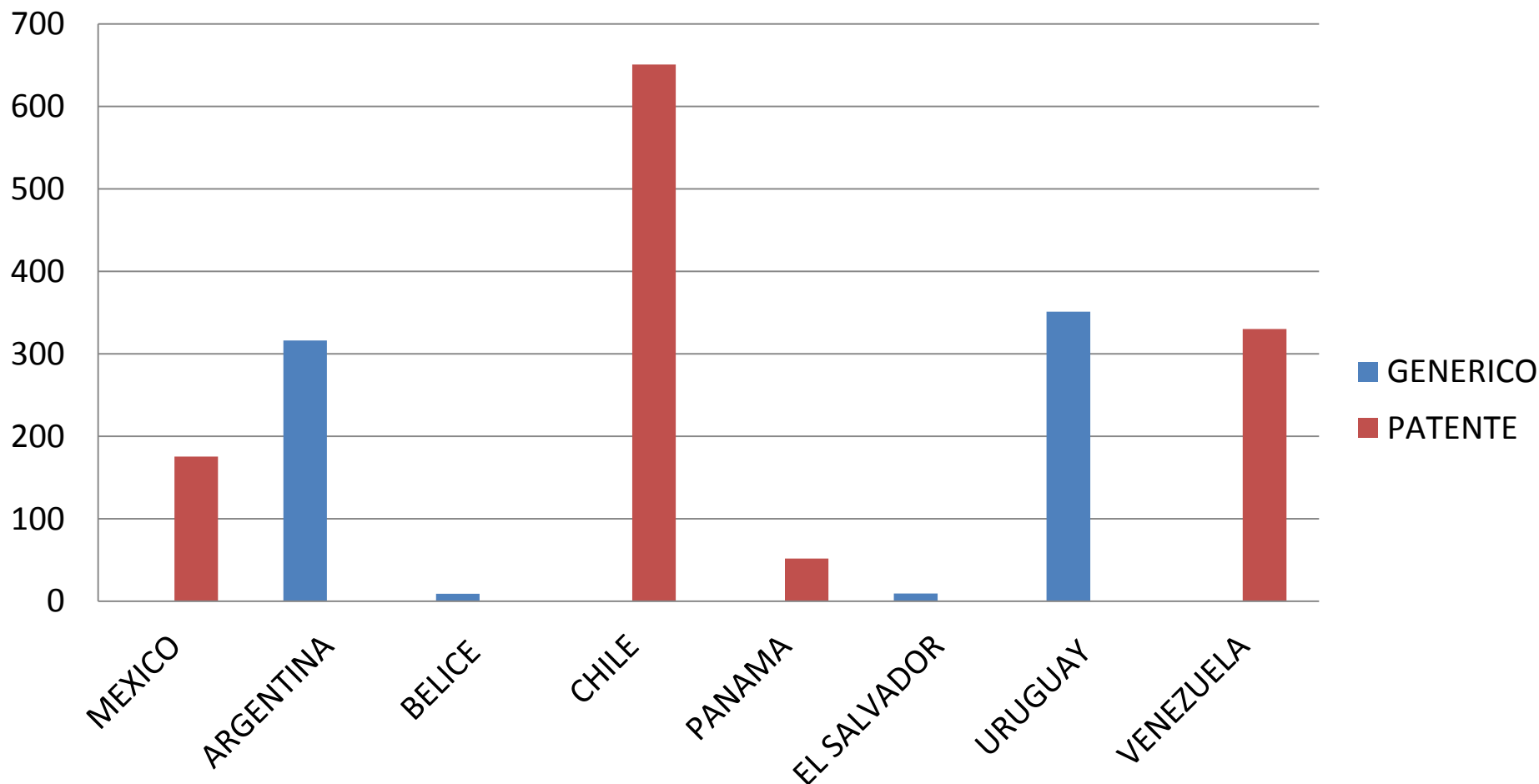
New AIDS deaths was declined by two-third after scaling up of ART program

Data sources: AIDS Epidemic Model (AEM), NHSO, SSO, CSMBS, GF, and Thai GPO, Updated by June 2013

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CHALLENGES

Monthly Price (2011 USD\$)
Emtricitabine/tenofovir (bottle with 30 tablets)



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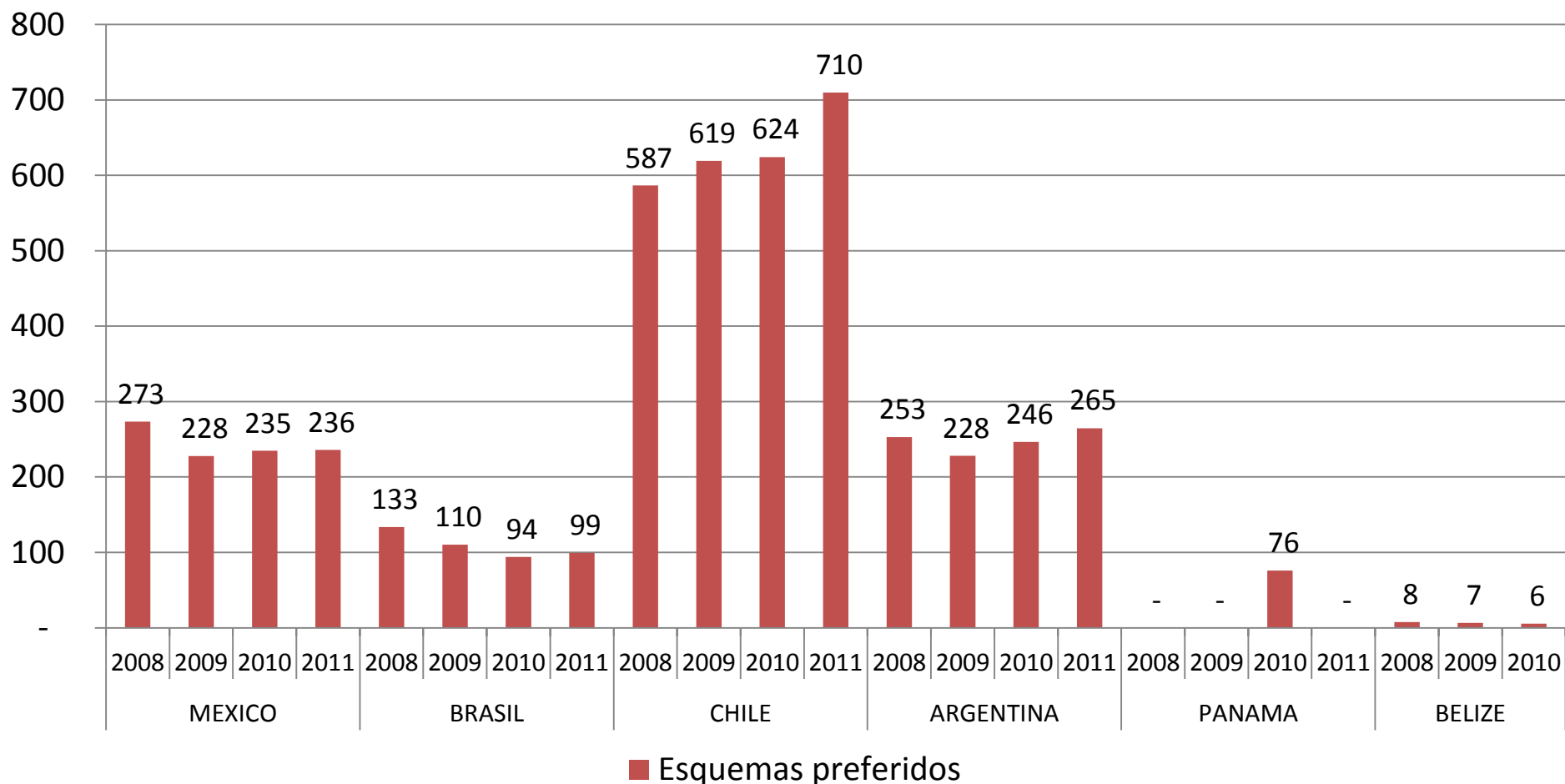


CHALLENGES

Preferred Regimens according to WHO 2010 Guidelines

LA countries 2008-2011

Average Monthly cost USD\$

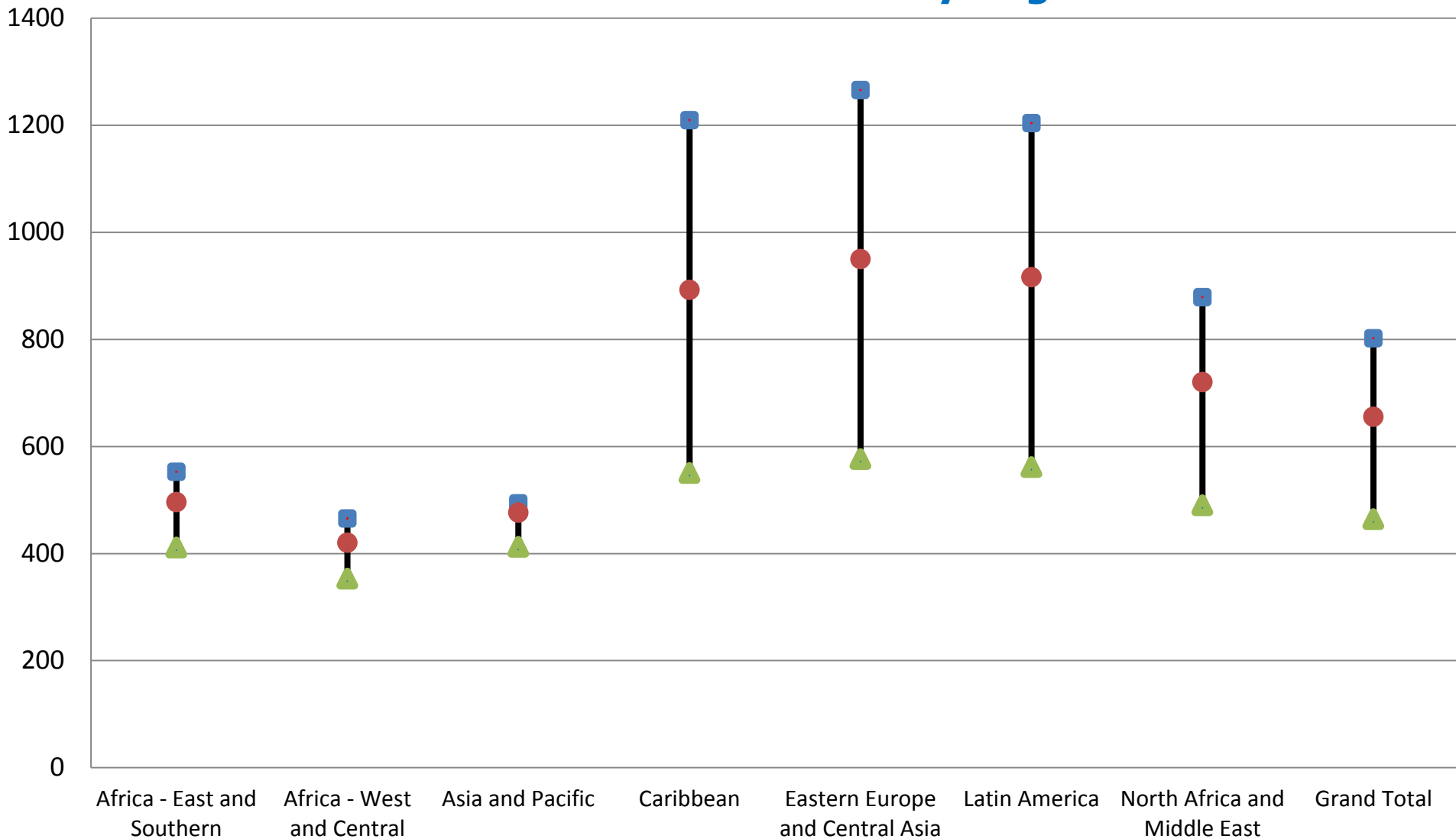


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Fast Track: Efficiencies and Economies of Scale

- **Community-based Service Delivery:** Studies have shown increase in uptake, higher retention and up to 48% reduction in cost.
 - Current mix is 95% Facility Based – 5% Community Based
 - By 2020, Community Based Delivery **should be 30%**
- **Economies of Scale (Facility-based):** Applying PEPFAR results, pro-rating estimated 28% reduction when capacity increases from 5,000 to 10,000 patients
 - People on ART will increase from 10m in 2012 to 24m in 2020, then 25m in 2030, so it is expected **a 42% reduction** by 2030.

ARV: Unit Costs Over Time by Region



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■ 2015 ● 2020 ▲ 2030



Comparison of the HIV resource needs with current and future Health Expenditure

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HIV Global Resource Needs Estimates (Health and non-health):

Share of Total Health Expenditure by Income Level 2020 - 2030

