

Challenges and Opportunities to Optimizing the HIV Care Continuum – Can We Test and Treat Enough People to Make a Seismic Difference by 2030?

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International Association of Providers of AIDS Care

Yes, of course

Next question?

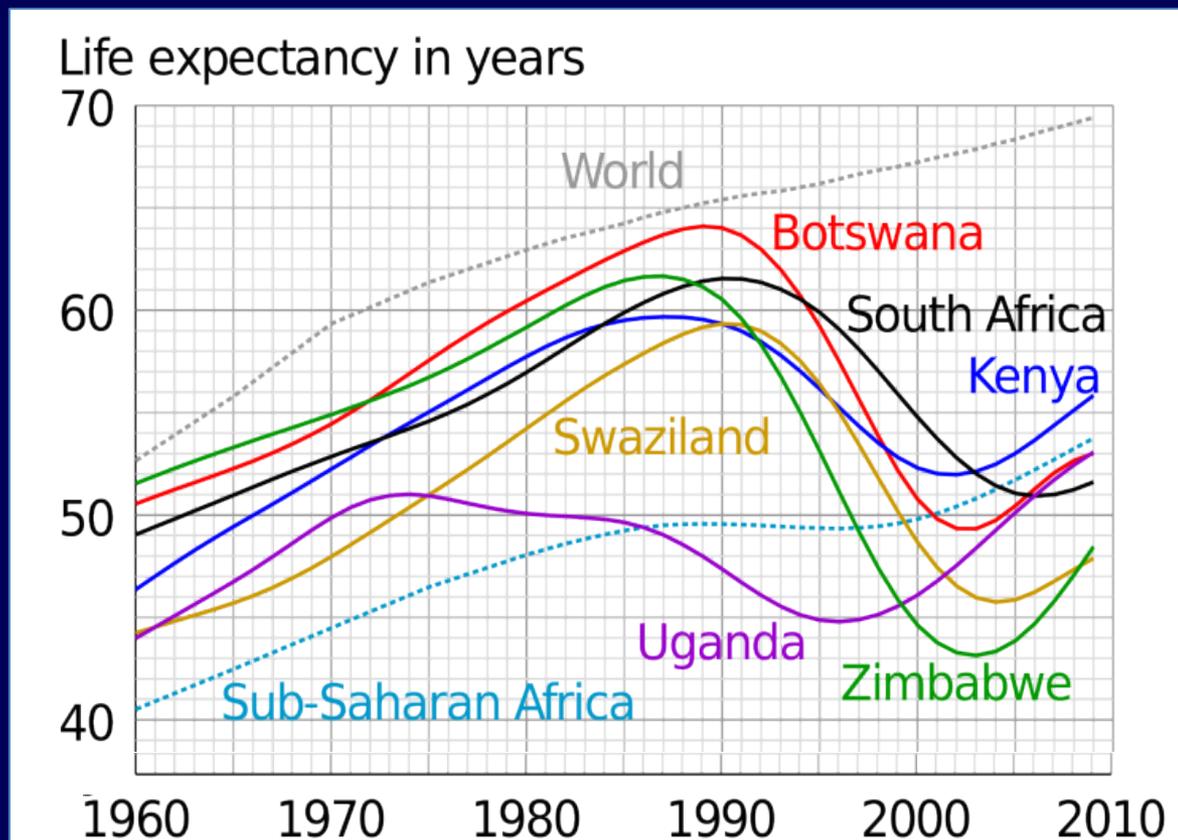
Outline

- Current situation
- Challenges and solutions
 - Re-framing the HIV response
 - HIV testing gap
 - M and E and the care continua
 - Policy
 - Global financial situation
 - Leadership

Yes ..and we still have a significant problem

- Significant public health threat (2015):
 - 36.7 million people globally were living with HIV
 - 2.1 million people became newly infected with HIV
 - 1.1 million people died from AIDS-related illnesses
- Devastating impact:
 - 78 million people have become infected with HIV since the start of the epidemic
 - 35 million people have died from AIDS-related illnesses since the start of the epidemic

Dramatic impact of HIV response on life expectancy



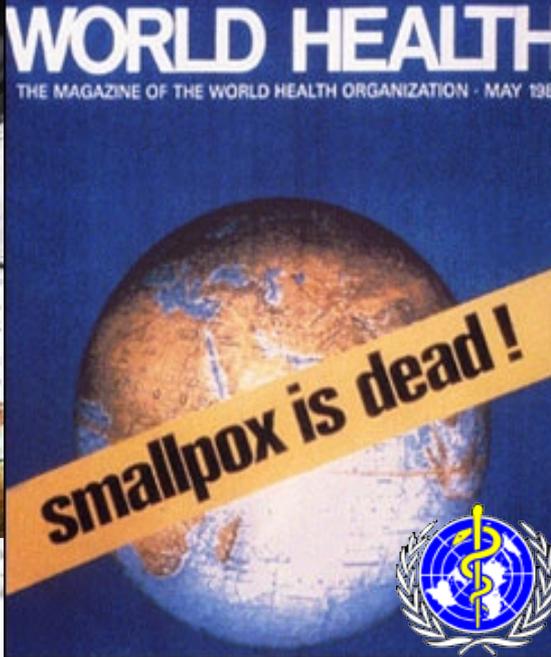
World Bank life expectancy data

Smallpox eradication 1796 to 1977: Edward Jenner to Merca Town, Somalia



World Health Organization

Year	Smallpox cases
1977	0
1976	1
1975	1
1974	1
1973	1
1972	1
1971	1
1970	1
1969	1
1968	1
1967	1
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1796	1



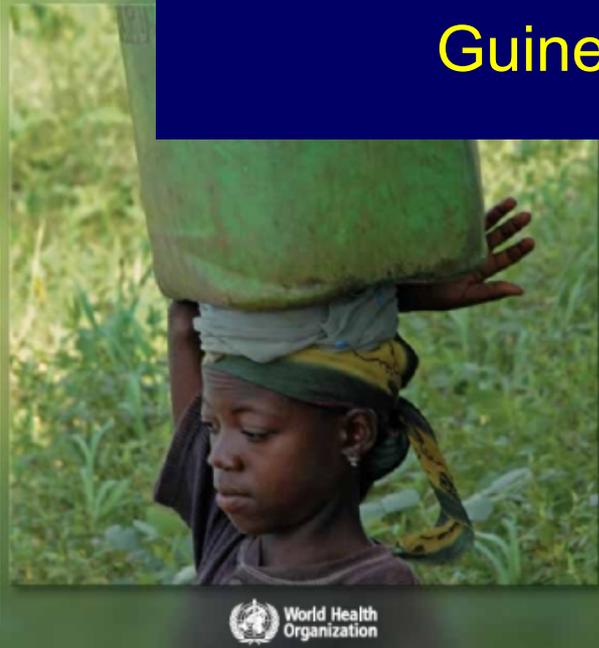
देवी आल्यामुळे
चेहरा विद्रुप होतो
आंधळेपणा येतो
किंवा
मृत्यू ओढवतो



देवी पासून संपूर्ण बचावण्यासाठी
देवी काढून घ्या



Guinea worm eradication



Preventable blindness



Re-framing our HIV response: endless struggle vs winnable public health victory by 2030



- *Elimination of HIV*
- *End of AIDS*
- *Epidemic control*
- **90-90-90**
- *Fast Track Cities initiative*
- *Zero stigma*
- *Getting to zero*
- *Cure*
- *Vaccine*

90-90-90 and Continuum of Care Targets



Know status



On treatment



Virally suppressed



90%



81%



73%

Global HIV testing gap

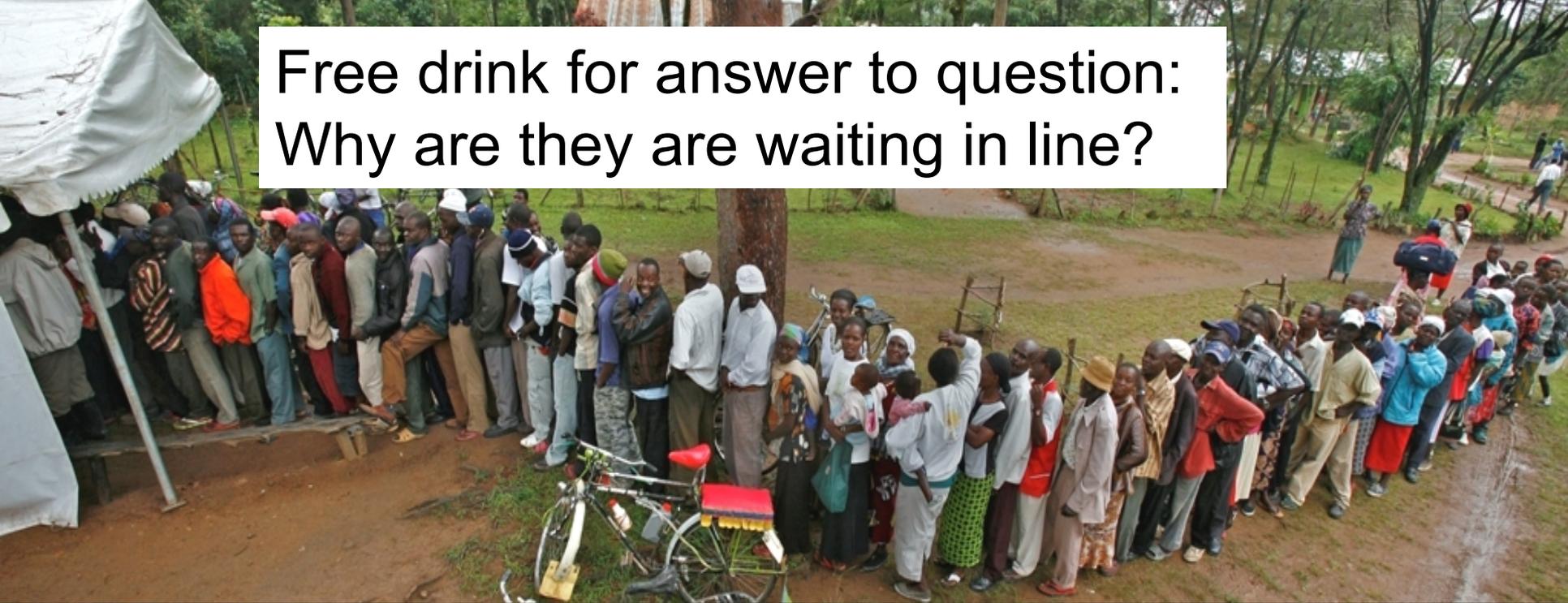
Figure 15

Global results: HIV treatment cascade, 2015



*See explanatory notes

Free drink for answer to question:
Why are they are waiting in line?



Mikkel is not allowed to answer...

Counseling and testing is feasible and works in a wide variety of settings—need to go to scale

Integrated Prevention Demonstration Campaign Launched in Western Kenya to Fight HIV... | Reuters

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Integrated Prevention Demonstration Campaign Launched in Western Kenya to Fight HIV...

Mon Sep 16, 2008 9:00am EDT

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Integrated Prevention Demonstration Campaign Launched in Western Kenya to Fight HIV, Malaria and Diarrhoeal Disease
Innovative Campaign Breaks Down Policy and Funding Barriers and Paves Way for Affordable and Efficient Approach

NAROK, Kenya, Sept. 15 /PRNewswire/ -- A new approach to fighting malaria, diarrhoeal diseases and HIV was launched today in the Western Kenyan district of Kakamega in Sumbi division.

The new campaign will provide a basic care package consisting of a Permalite® long-lasting insecticide-treated bed net, a Lifesaver® water purification tool, condoms and educational materials as encouragement for residents to participate in a voluntary HIV counseling and testing campaign. The campaign, officially called the "Integrated Prevention Demonstration," will allow for more than 40,000 residents of this division to learn their HIV status by visiting one of 30 HIV testing sites open from September 14-22, 2008.

"For the first time, a campaign will provide a basic care package of multiple health interventions as encouragement for voluntary HIV counseling and testing. By using Permalite® bed nets, Lifesaver® water purifiers, and condoms as encouragement for an HIV test benefiting both HIV positives and negatives, we would enable a large proportion of the population to know their HIV status while protecting them from HIV, malaria and diarrhoea," said Mikael Vestergaard Frandsen, CEO of Vestergaard Frandsen and the developer of the concept of the IPD. "These are many elements of this campaign that will



Senator Barack Obama and his wife, Michelle Obama know their status...

KNOW YOUR HIV STATUS!

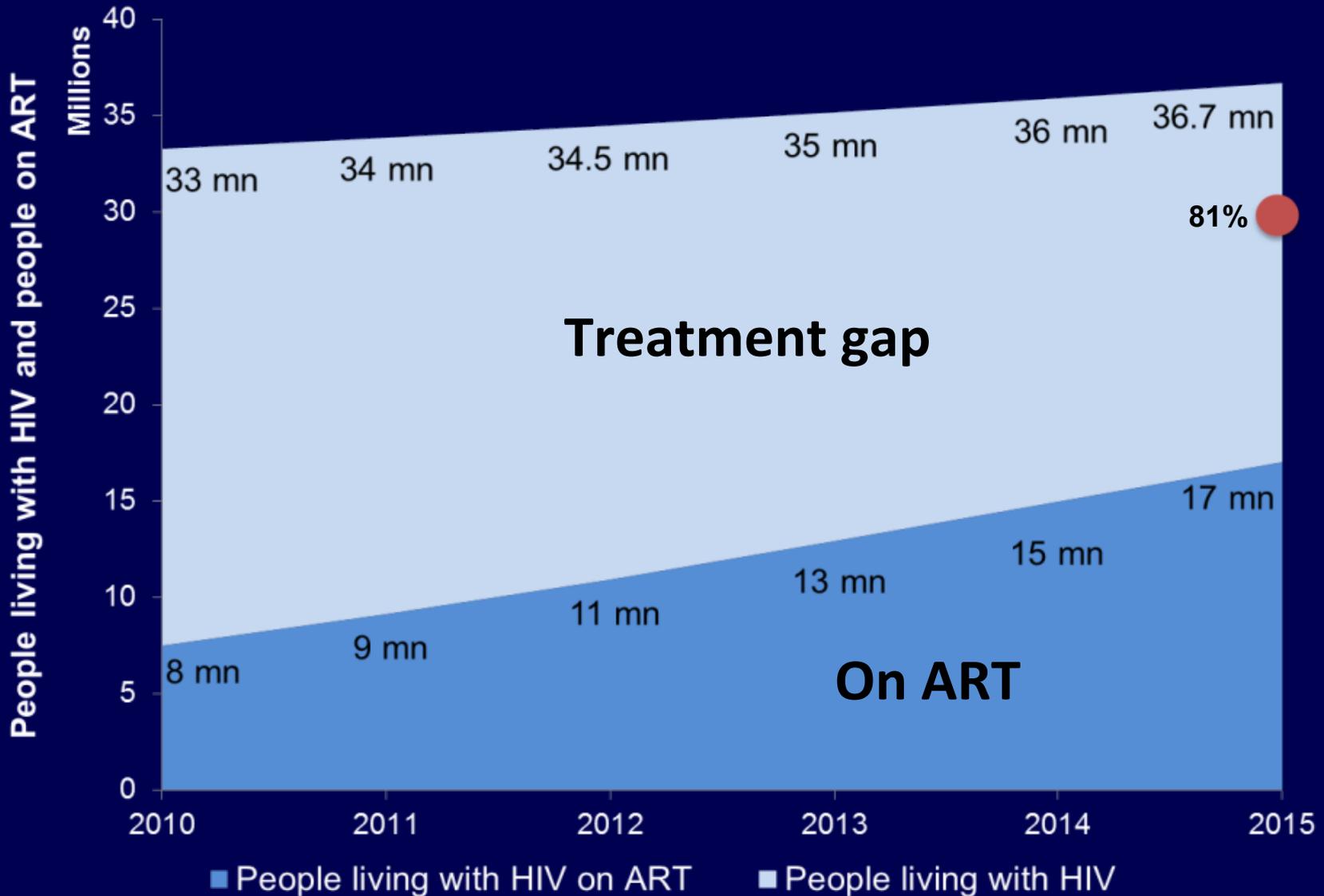
...DO YOU AND YOUR PARTNER KNOW YOURS?

For more information, contact the Ministry of Health, facility nearest you.

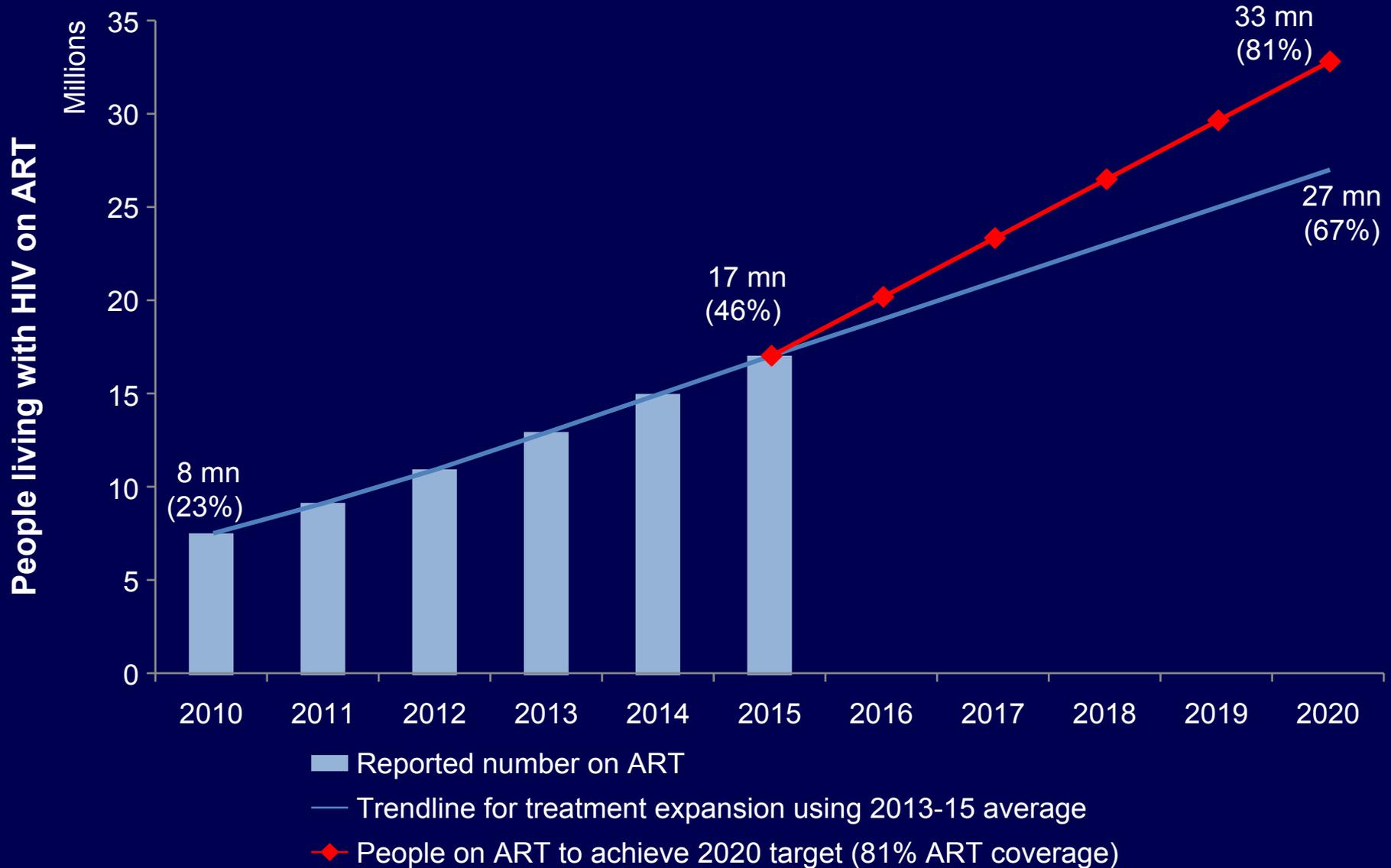


Photos courtesy of Bunnell R. Marum E. and Vestergaard

Global access to HIV treatment, 2010-2015



Reported and projected people on ART



Mapping on ART and viral suppression

The screenshot displays the 'Global HIV 90-90-90 Watch' website. The main content area features a world map titled 'People living with HIV (PLHIV) diagnosed (52 countries with available data)'. The map is color-coded by the percentage of PLHIV diagnosed: red for 0-60%, pink for 70-80%, and green for 90-100%. A legend in the bottom right of the map area provides the key. To the right of the map, a 'Countdown to 2020' section shows 3 years, 2 months, and 19 days remaining. Below this, a 'NEW HIV INFECTIONS (2015)' section reports 2.1 million. A 'Links' section on the right contains several resource links. At the bottom of the page, there are three buttons: 'PLHIV diagnosed', 'PLHIV on ART', and 'PLHIV with viral suppression'. The browser's address bar shows 'www.hiv90-90-90watch.org/uat/'. The Windows taskbar at the bottom includes icons for various applications and the system clock showing 3:22 AM on 10/13/2016.

IA PAC
INTERNATIONAL ASSOCIATION
OF PROVIDERS OF AIDS CARE

Global HIV 90-90-90 Watch

Last updated : August, 2016

Home Introduction Tour Submit New HIV Continuum Technical Team

Map Charts Compare

People living with HIV (PLHIV) diagnosed

(52 countries with available data)

Target: 90%

Countdown to 2020

3	2	19
Years	Months	Days

NEW HIV INFECTIONS (2015)

2.1 million

Links

- Methodology for reported data
- Cascade data and sources
- Presentation
- IA PAC Guidelines on HIV Care Continuum Optimization
- WHO Strategic Information Guidelines 2015
- UNAIDS 90-90-90

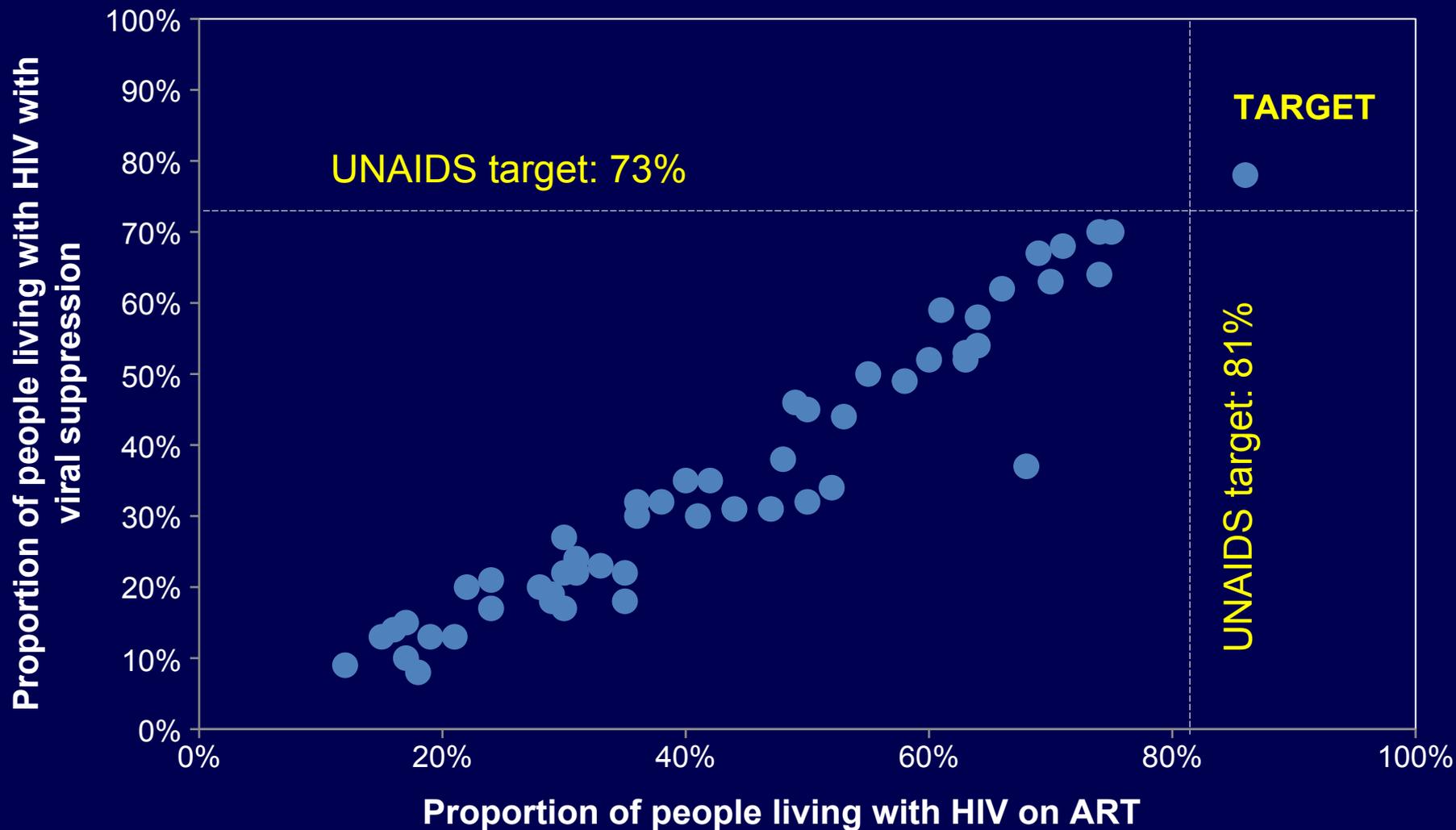
PLHIV diagnosed PLHIV on ART PLHIV with viral suppression

20140716_PR_Gap...pdf 2016-prevention-g...pdf 3030-21-figure-2.png

3:22 AM 10/13/2016

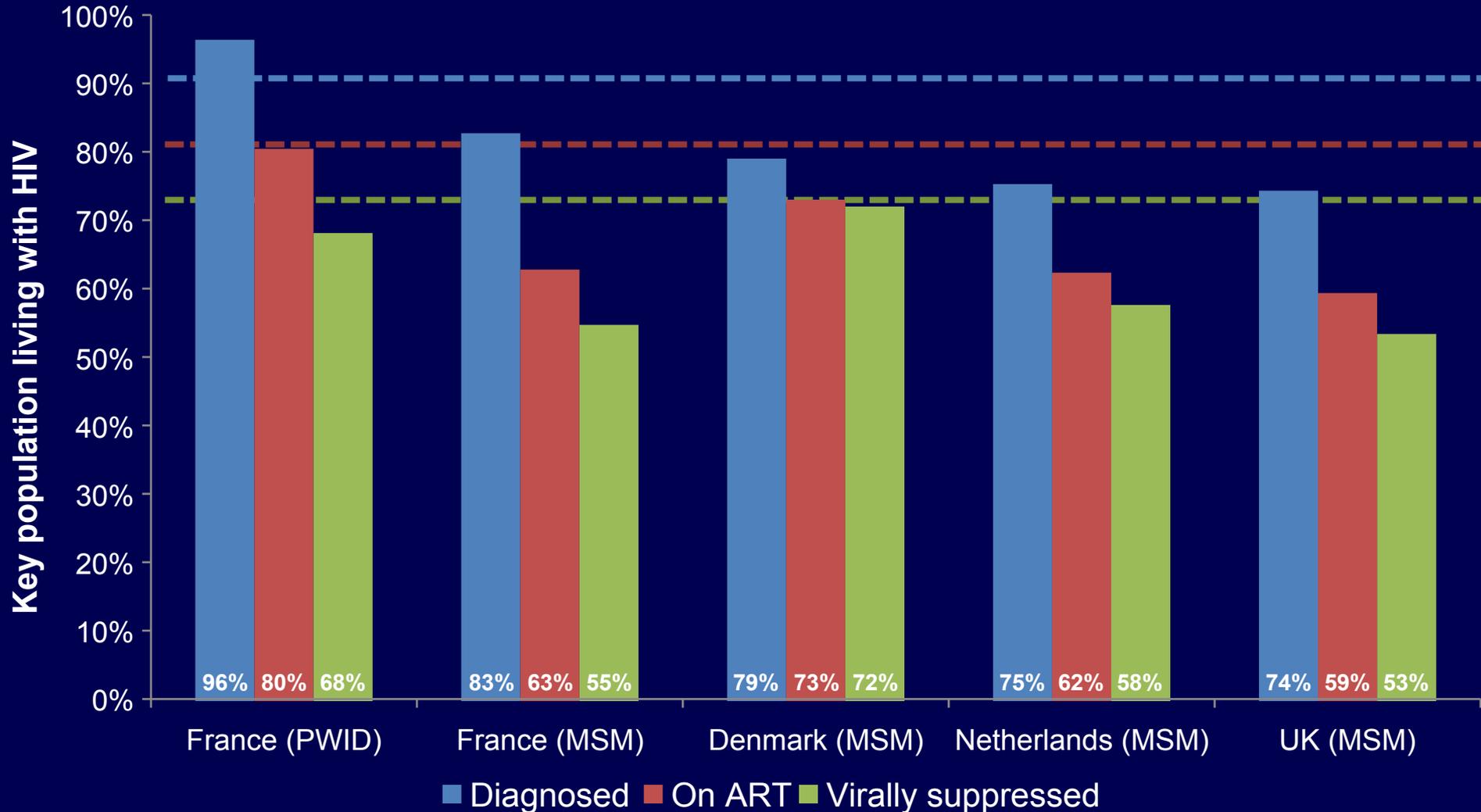
53 countries with complete care continua

Proportion of people living with HIV on ART and with viral suppression



53 countries with complete care continua

Key Population Continua: top 5 countries with >53% viral suppression (2010-2016)

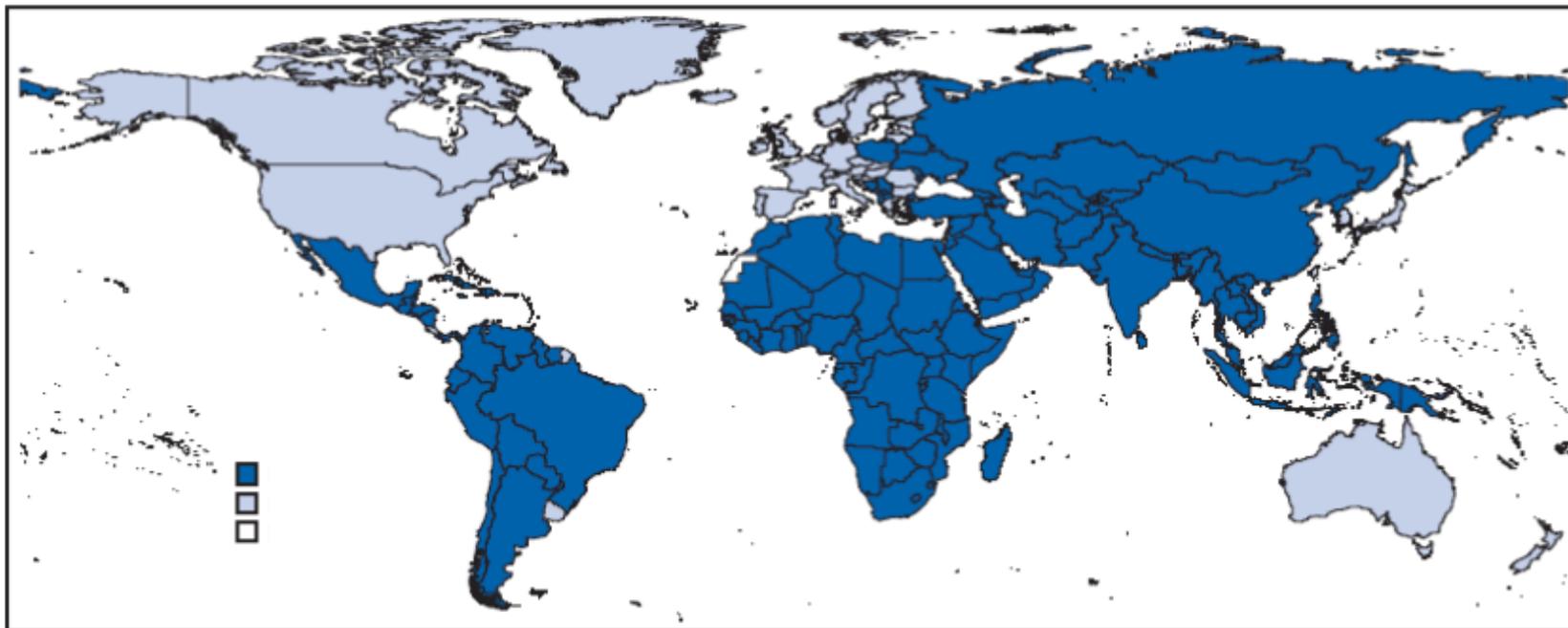


Documenting and grading care continua methods

		VNG WITH SED HIV	PEOPLE RECEIVING ART	PEOPLE ON ART WITH SUPPRESSED VIRAL LOAD	QUALITY	
Arg		Data on new HIV paths	Registers of AIDS Direction (Ministry of Health), registrations in semiprivate and private health subsystems	VL <50 copies/mL Data from AIDS Direction. Calculated using a sample of people on ART receiving VL	Medium	
Arm			National Center for AIDS Prevention (NCAP), Ministry of Health	VL <250 copies/mL Based on data from NCAP laboratory	Medium	
Aus		Registry and this	ART coverage is estimated as average of 4 approaches: ARV			
Bel		estimate & notifications with Disease Hospital in				
Belgium ^{5,6}	National cohort data	UNAIDS estimate	National registration of new diagnosis			
Brazil ⁷	Country presentation	Sistema de Informacao de Agravos de Notificacao or System for notifiable diseases information (SINAN) and Sistema de Informacao de Mortalidade System on Information on Mortality (SIM)	SINAN and SIM			
Cambodia ⁸	PEPFAR Country Operational Plan	UNAIDS estimate	Calculated as: # of pre-ART + ART patients at end of 2014 plus new positive diagnoses in 2015 minus deaths in 2015 from pre-ART and ART	National Centre for HIV/AIDS, Dermatology and STIs (NCHADS) program data	VL <1,000 copies/mL Data from VL lab database. Calculated using a sample of people on ART receiving VL (65% PLHIV on ART tested for VL)	Medium
China ⁹	PEPFAR Regional Operational Plan	UNAIDS estimate	National Center for AIDS/STD Control and Prevention (NCAIDS) program data	NCAIDS program data	VL <1,000 copies/mL NCAIDS program data (viral load test for 90% of PLHIV on ART)	High

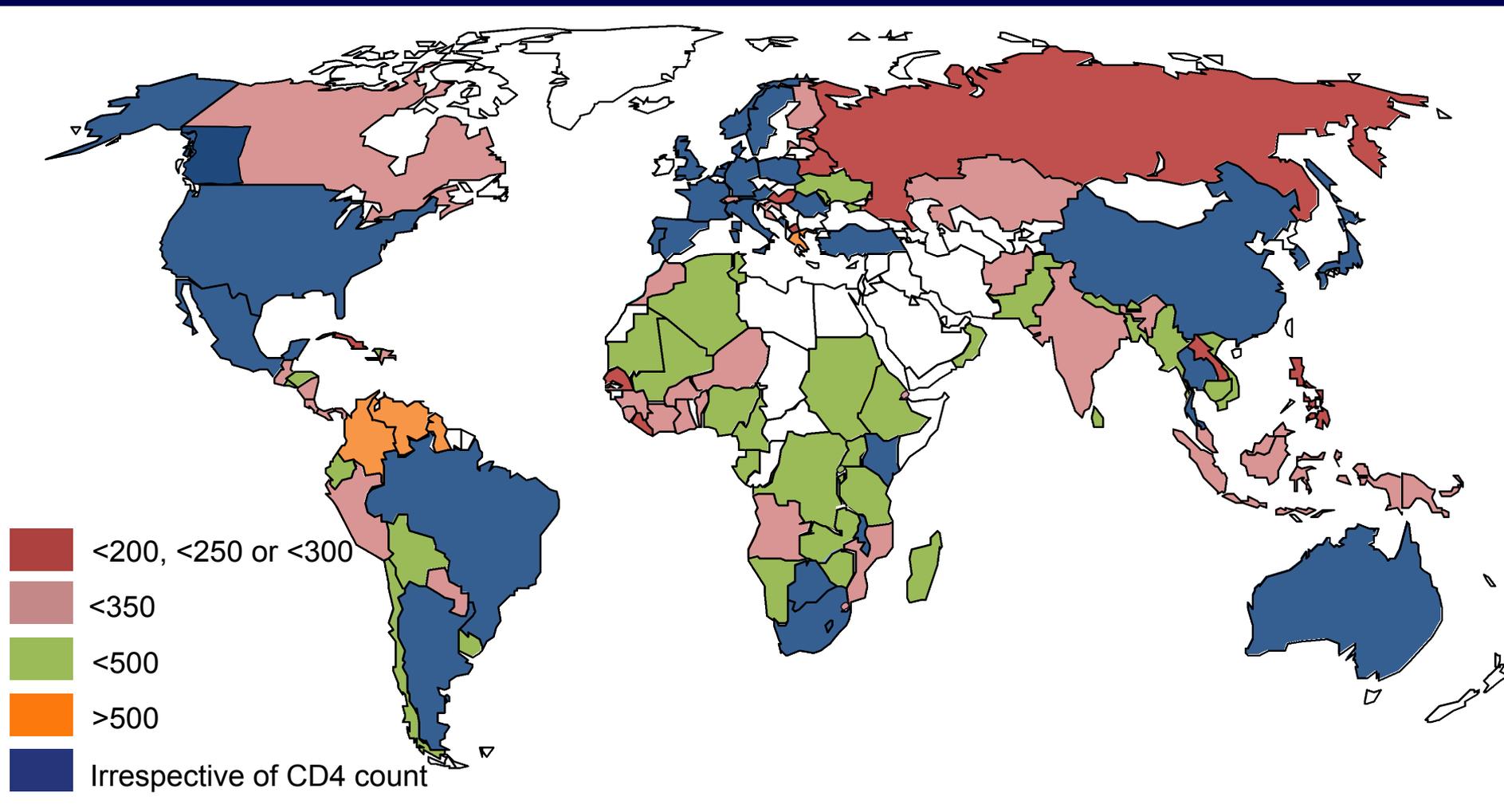


What is going on here?



ART initiation for asymptomatic people

2015 WHO Recommendation : Irrespective of CD4 count



Source: published policy
www.HIVpolicywatch.org

N= 30 (40% HIV burden) Countries Test and Treat

Policy Lag in Sub-Saharan Africa (33 countries)

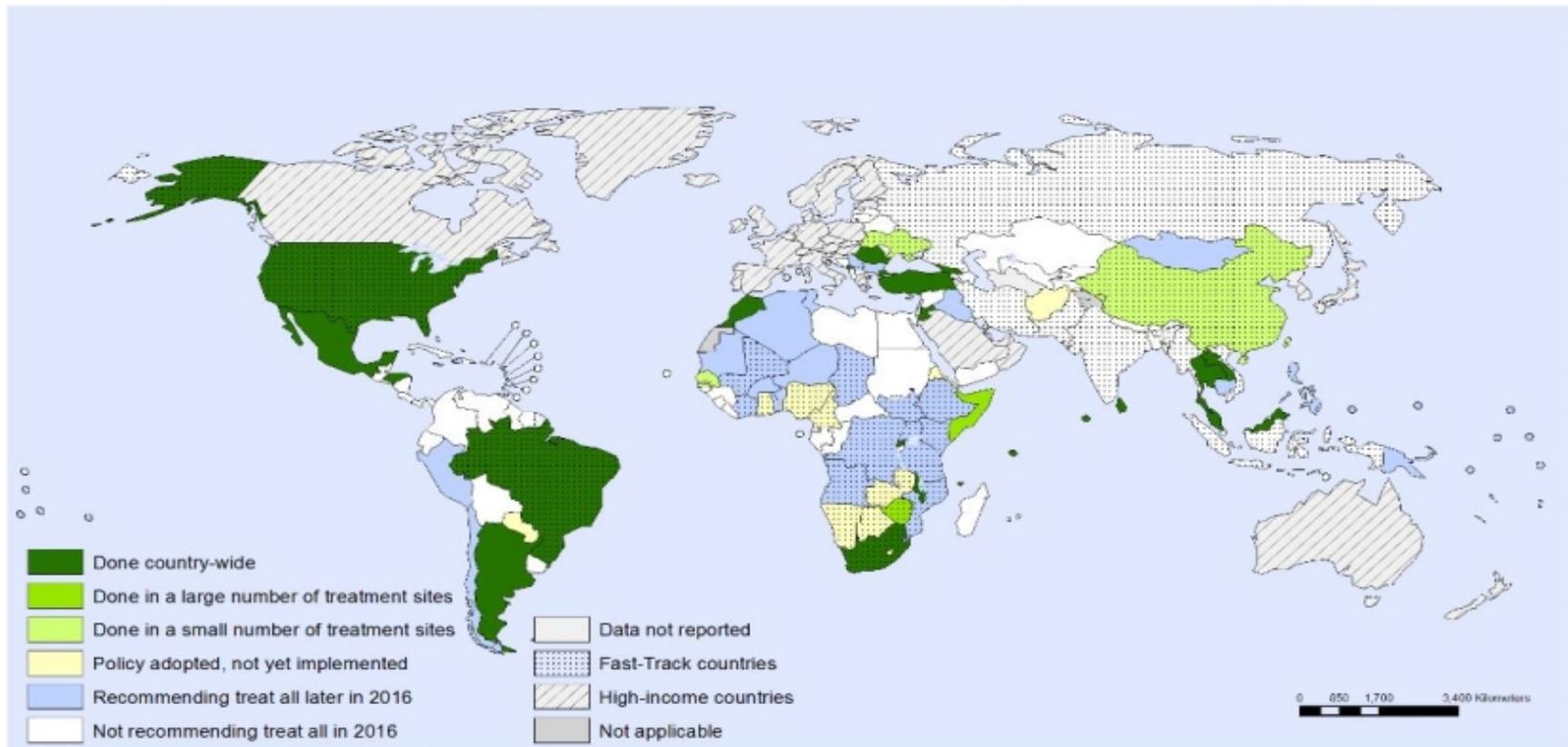
	WHO 2009 guidelines	WHO 2013 guidelines		WHO 2015 guidelines
Date of publication	October, 2009	June, 2013	June, 2013	September, 2015
ART eligibility criteria	<350 cells/mm ³	<500 cells/mm ³	<500 cells/mm ³	Irrespective of CD4 count
Countries that adopted the recommendation	33 (97% regional burden)	24 (86% regional burden)	33* (97% regional burden)	5 (40% regional burden)
Average time to adopt the WHO guidelines	24 [3-56] months	10 [0-36] months	18 [0-39] months	9 [7-12] months
Countries yet to adopt the recommendation		9 (11% regional burden)		28 (57% regional burden)

Source: Gupta, Granich (2016)

* Assumption: 10 remaining countries move to CD4 <500 or earlier in September 2016

Good news: WHO status report (2016)

Implementation of TREAT ALL recommendation among adults and adolescents living with HIV in low- and middle-income and Fast-Track countries (situation as of July 2016)



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.

Data Source: World Health Organization
Map Production: Information Evidence and Research (IER)
World Health Organization

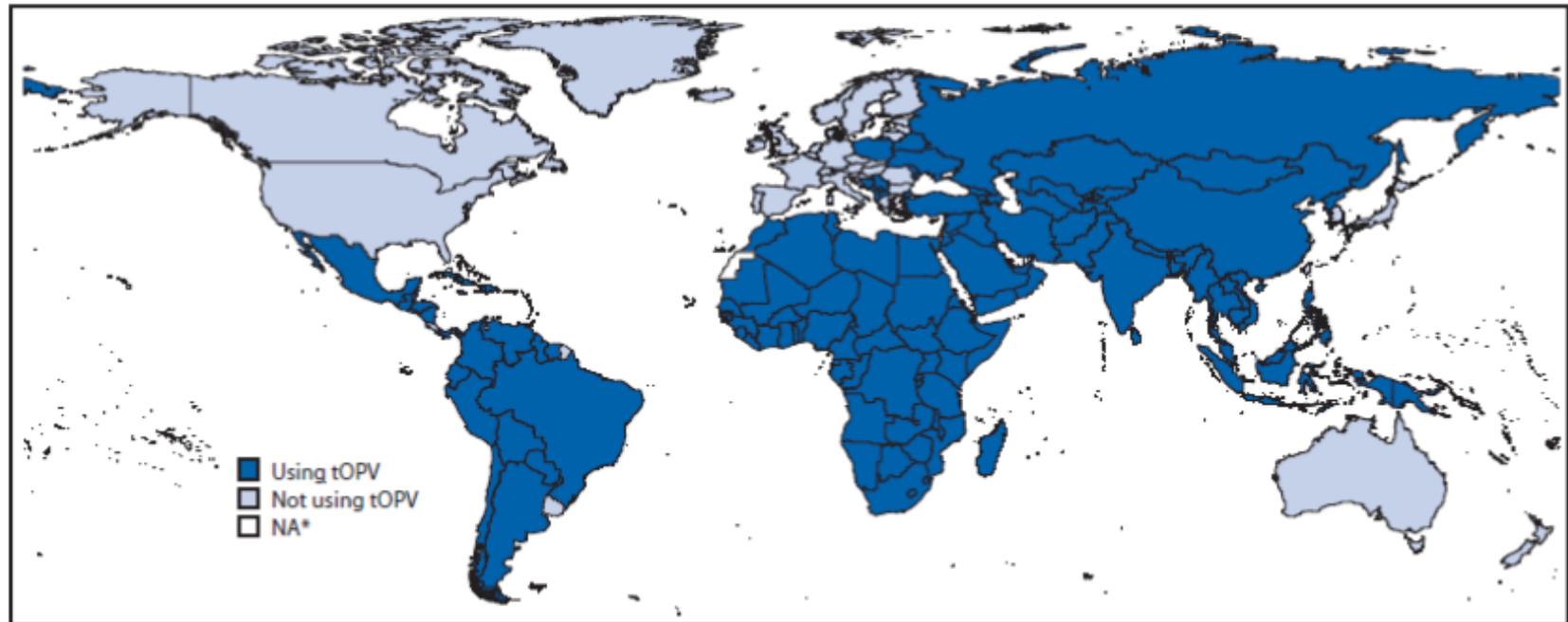


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Answer:

One policy for polio eradication using tOPV

FIGURE 2. Status of trivalent oral poliovirus vaccine use, by country — worldwide, June 24, 2015



Source: World Health Organization Immunization Repository.

Abbreviation: tOPV = trivalent oral poliovirus vaccine.

* Data not available.

UNAIDS Fast Track needs assessment: prioritization and efficiency: ~\$25BN

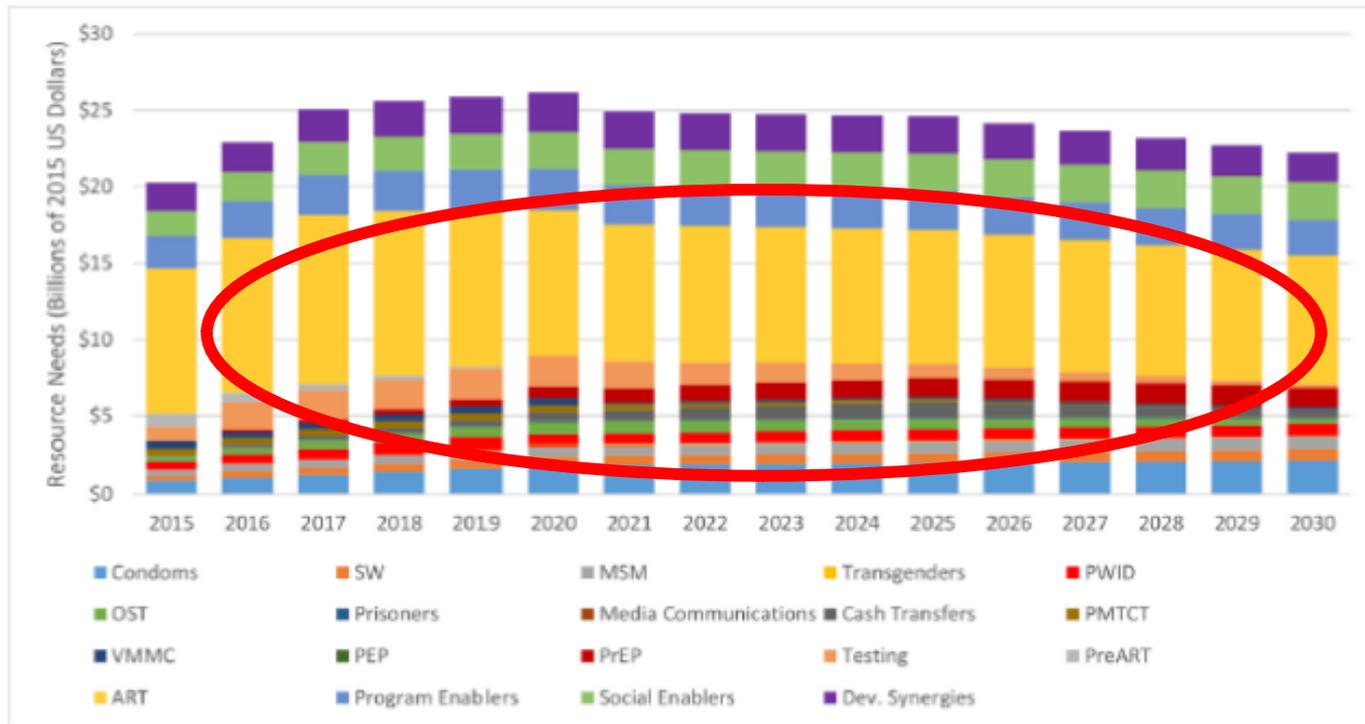
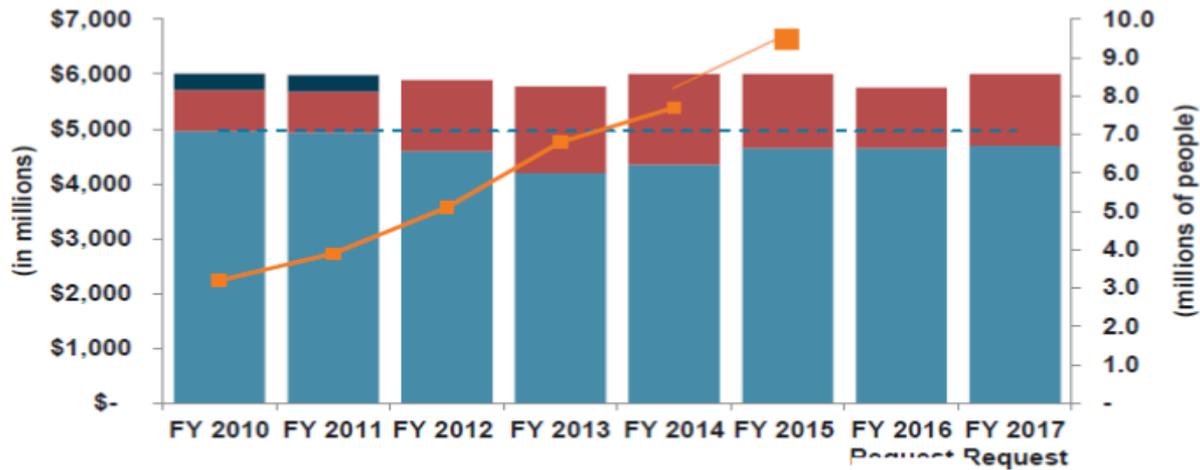


Fig 2. Annual Resource Needs by Intervention, 2013–2030. Key: SW = sex workers, MSM = men who have sex with men, PWID = people who inject drugs, OST = opioid substitution therapy, PMTCT = prevention of mother-to-child transmission, VMMC = voluntary medical male circumcision, PEP = post-exposure prophylaxis, PrEP = pre-exposure prophylaxis, Dev. Synergies = Development Synergies

doi:10.1371/journal.pone.0154893.g002

Funding is flat-lined

HIV/AIDS Funding Trends: FY 2010 Enacted - FY2017 President's Request



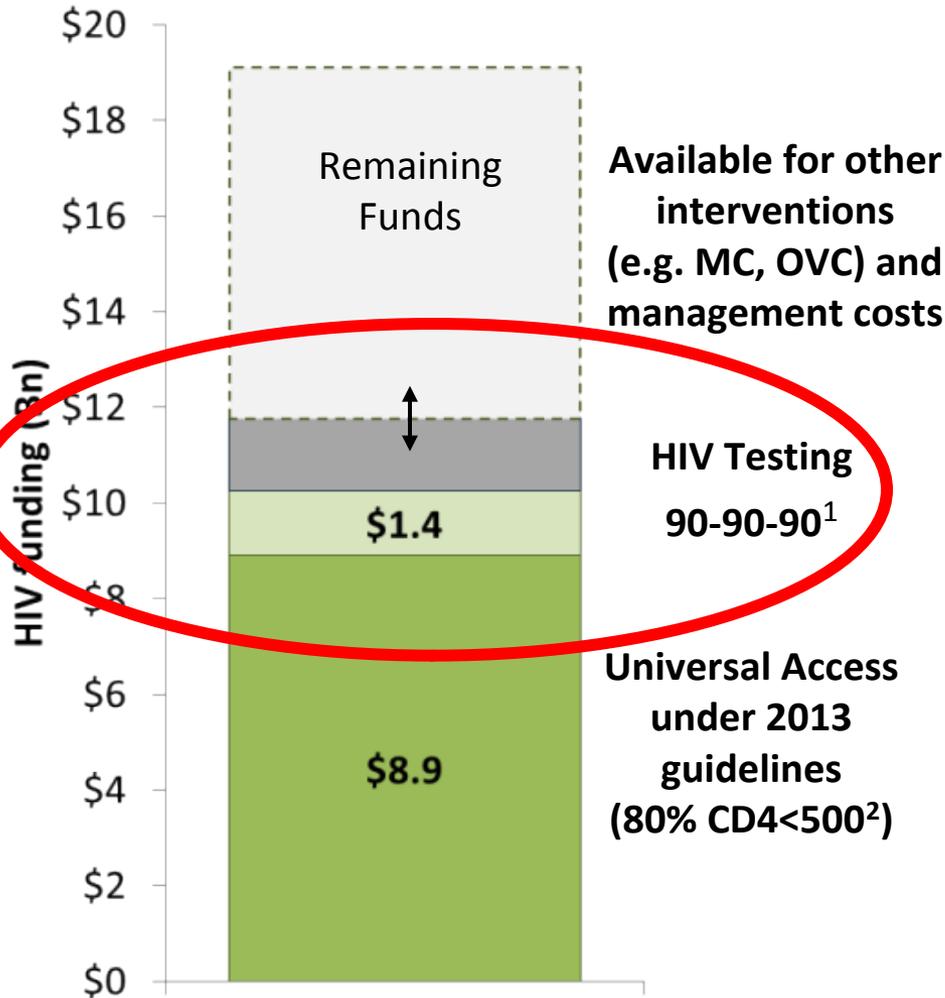
- Total Global Fund Contribution (NIH)
- Total Global Fund Contribution (Foreign Ops only)
- \$4.9B (FY 2010 Foreign Ops non-GF)
- Millions of people on treatment (PEPFAR)



Excludes NIH HIV/AIDS Research Allocations

A high-level estimate suggests that universal access is affordable, with facility-level ART costs requiring 45-55% of available HIV funding (Ripin, CHAI)

Estimated facility-level ART costs relative to available HIV funding (billion USD)

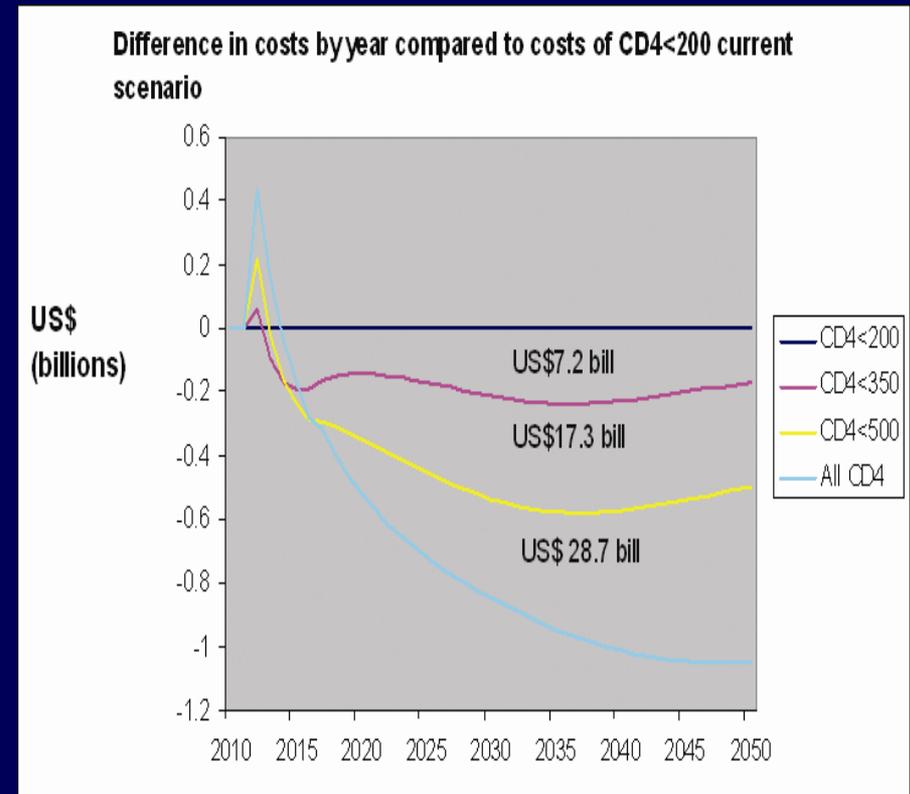
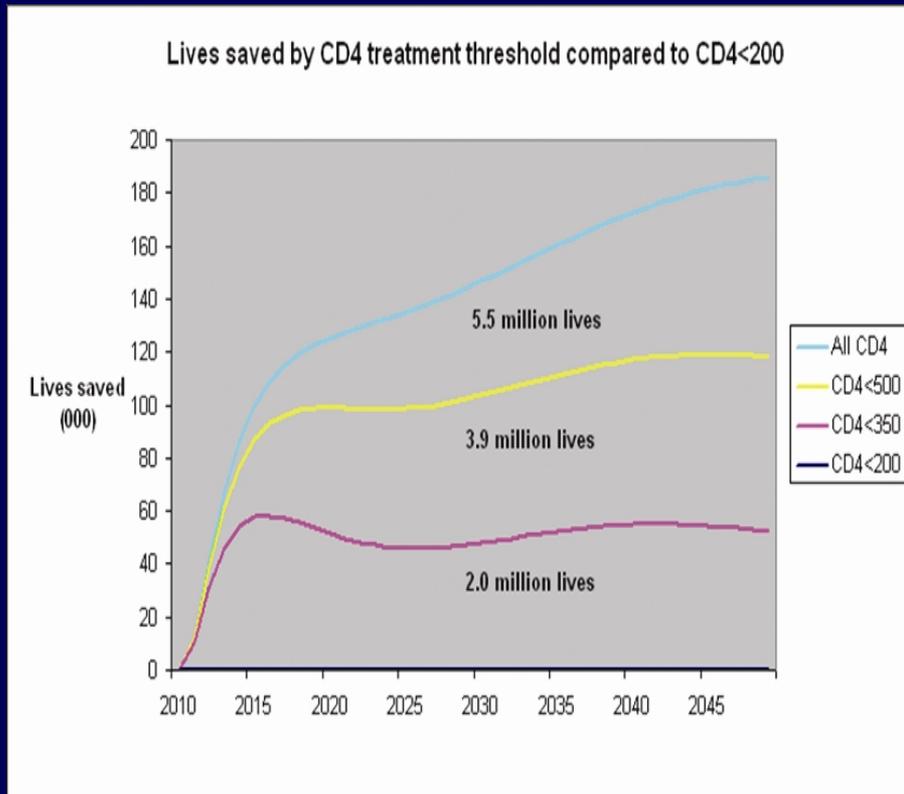


- The funding required to maintain people on treatment does not appear prohibitive: universal access under 2013 guidelines would require ~46% of available HIV funding
- Moving to the more aggressive goal of 90-90-90 only adds 1.4B more, reaching ~53% of HIV funding
- Annual testing costs will vary significantly depending on level of targeting and timeline to reach targets

1. Defined as 81% PLHIV

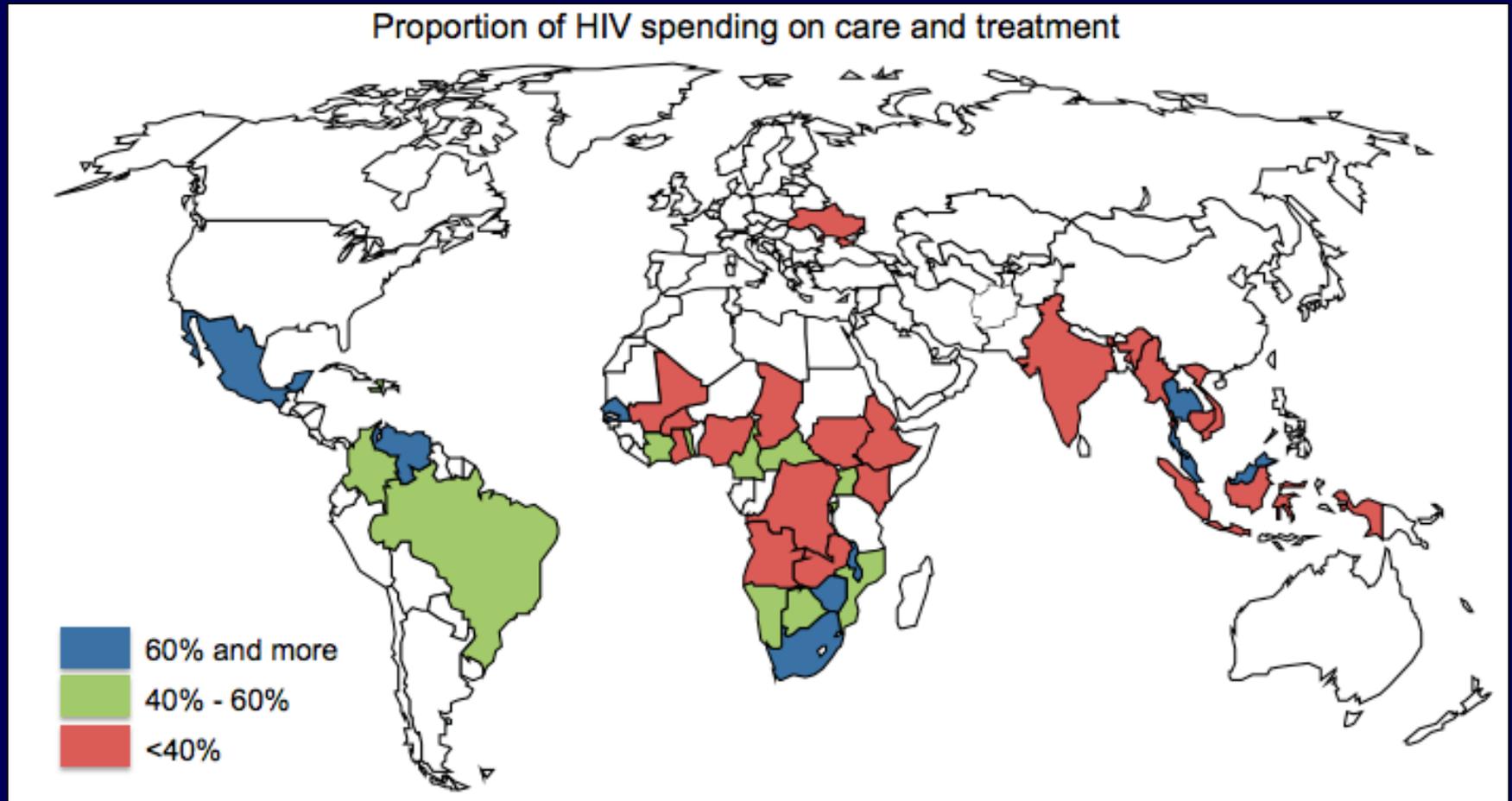
2. Also includes implementation of Option B+ and treatment for serodiscordant couples.

Expanding treatment can save millions of lives and billions of dollars



Potential lives and cost saved by expanding ART in South Africa

Global proportion of HIV spending on care and treatment in 39 low- and middle-income countries, 2009-2013



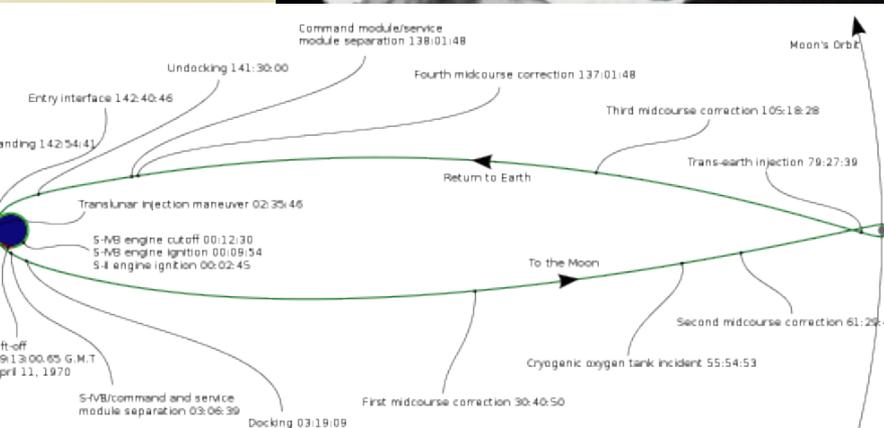
Partnership and prioritization

Partnership between Funders :

Program Area	Total Expenditure	% PEPFAR	% GF	% GOL	% Other
Clinical care, treatment and support	\$32,428,092	19%	26%	47%	9%
Community-based care	\$1,258,380	40%	0%	0%	60%
PMTCT	\$4,275,162	70%	6%	0%	23%
HTC	\$4,743,193	73%	23%	3%	1%
VMMC	\$6,693,824	97%	2%	0%	1%
Priority population prevention	\$6,866,831	60%	23%	2%	16%
OVC	\$19,533,391	21%	24%	40%	15%
Other impact mitigation	\$1,465,418	0%	16%	0%	84%
Laboratory	\$4,819,401	40%	27%	24%	9%
SI, Surveys and Surveillance	\$1,206,908	53%	18%	0%	29%
HSS	\$7,719,016	6%	61%	21%	13%

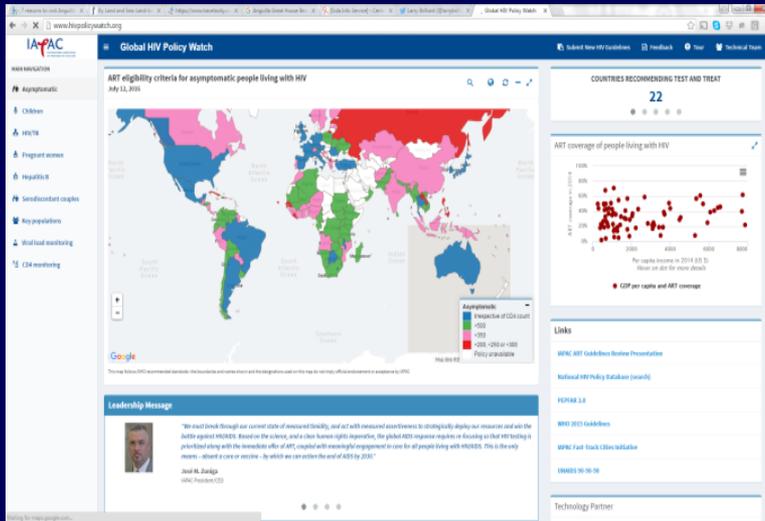
47,524,228 (52%) care, treatment, PMTCT, HTC and laboratory

Apollo 13 strategy: “Working the problem”

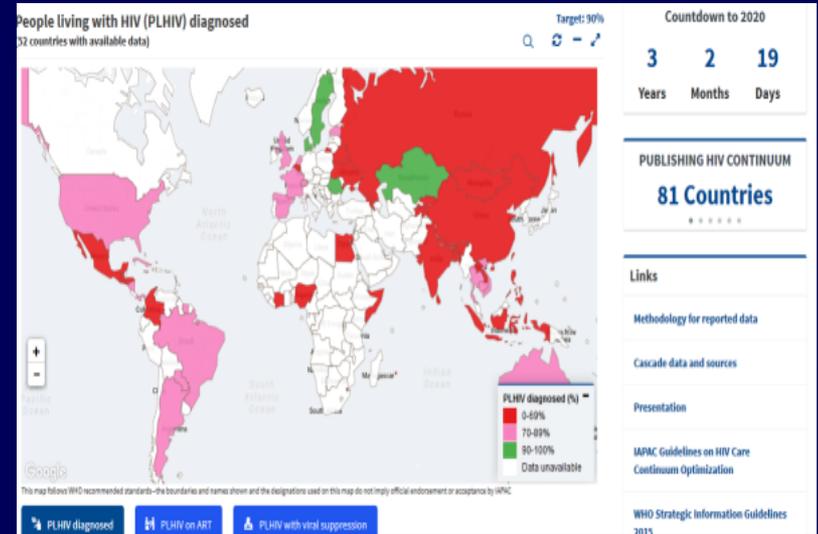


- Set clear and shared goals
- Identify bottlenecks
- Change business as usual—democratize test and treat
- Establish accountability and use open data
 - Use standard continua to measure 90-90-90 progress
- Accelerate pace of translating science to service delivery
- Budget for success
 - Determine costs and benefits of achieving 90-90-90
 - Improve efficiency
- Leadership on goals, priorities, execution and accountability
 - Failure is not an option

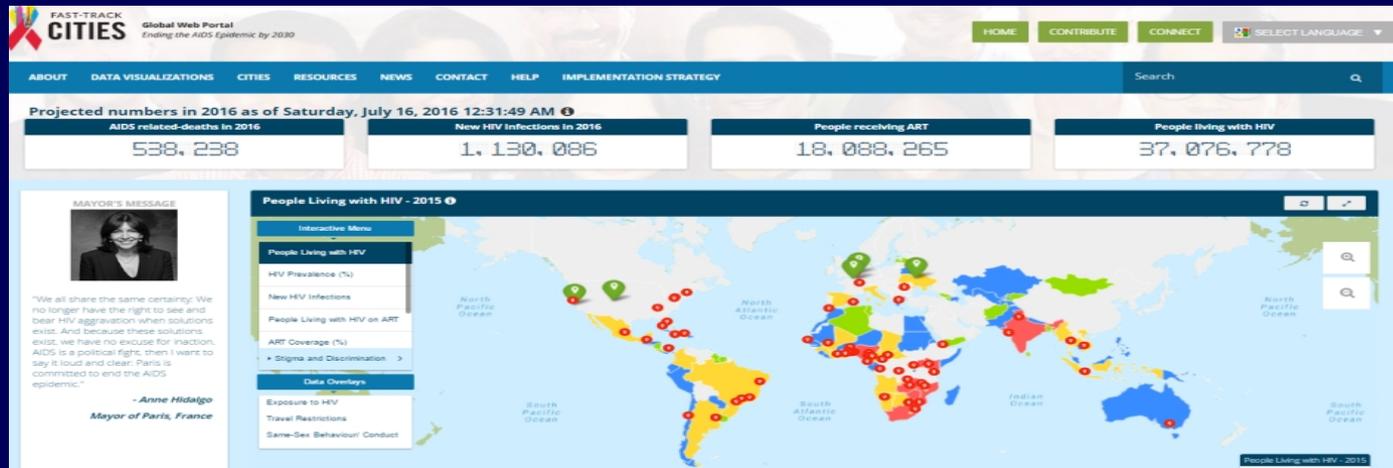
Thank you



www.HIVpolicywatch.org



www.HIV90-90-90watch.org

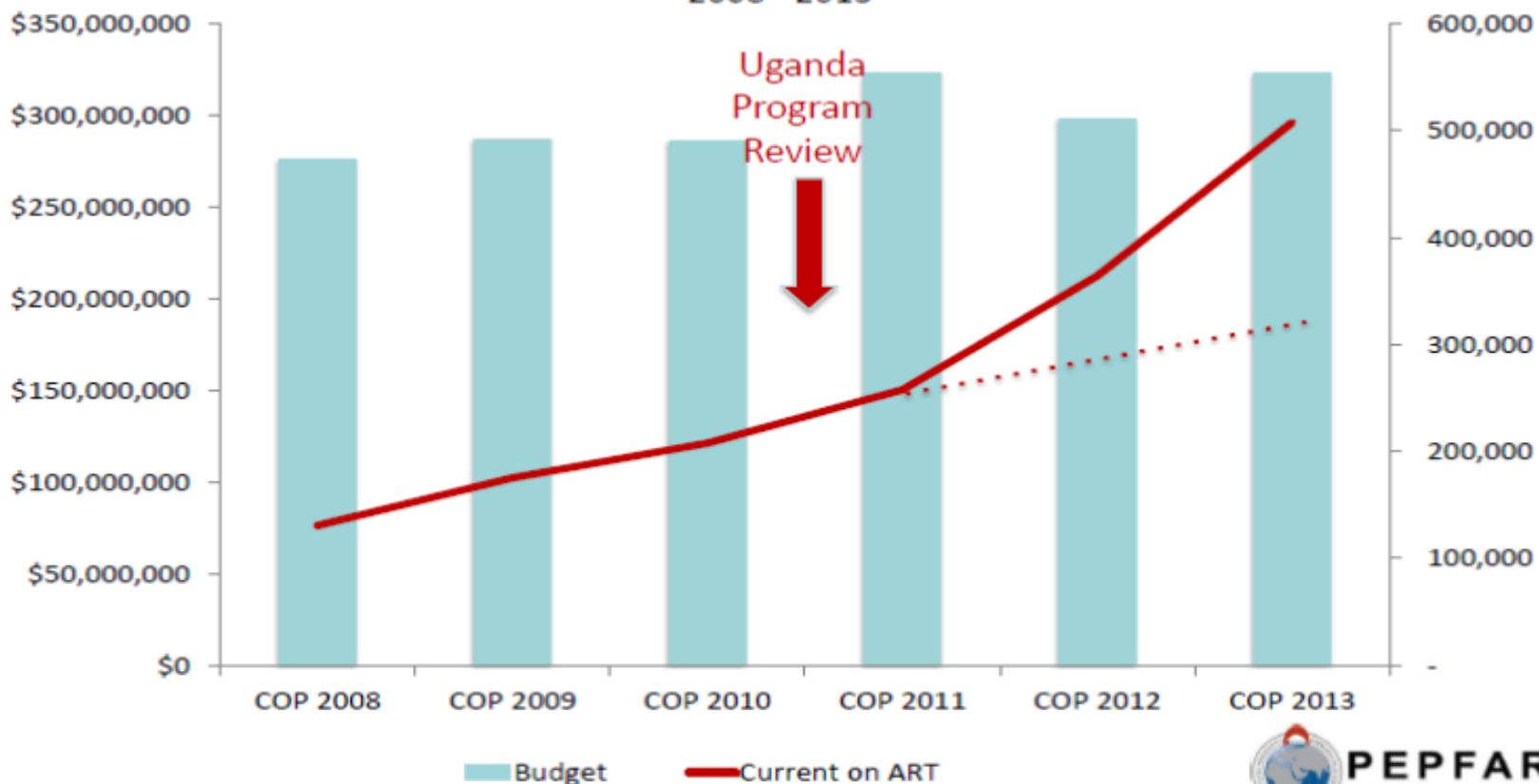


www.Fast-trackcities.org

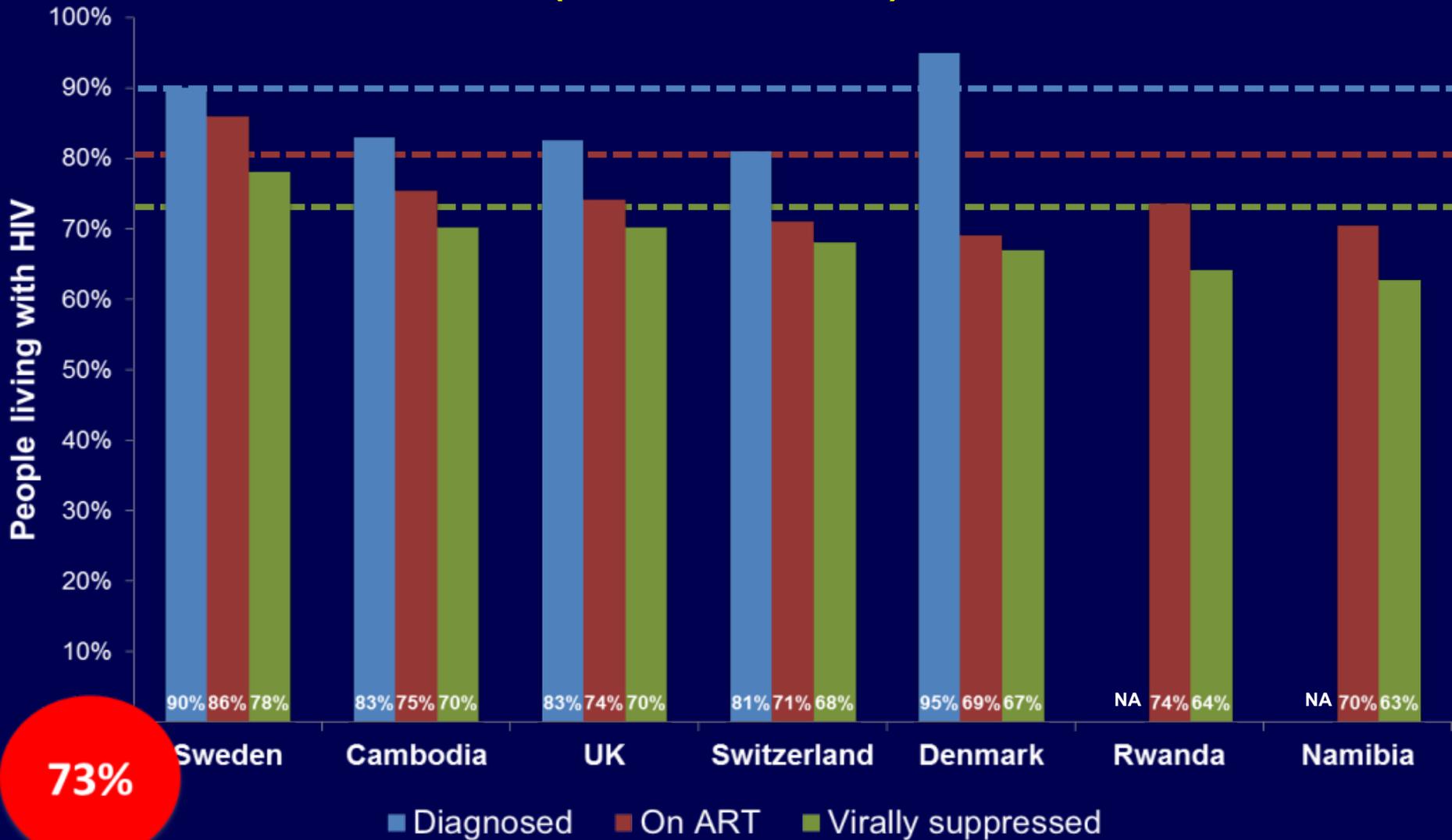
Uganda: Focusing on Core with Flat Budget

Treatment Results

PEPFAR Uganda COP Budget & Current on Treatment
2008 - 2013



Top 7 countries with >63% viral suppression (2010-2016)



53 countries with complete care continua

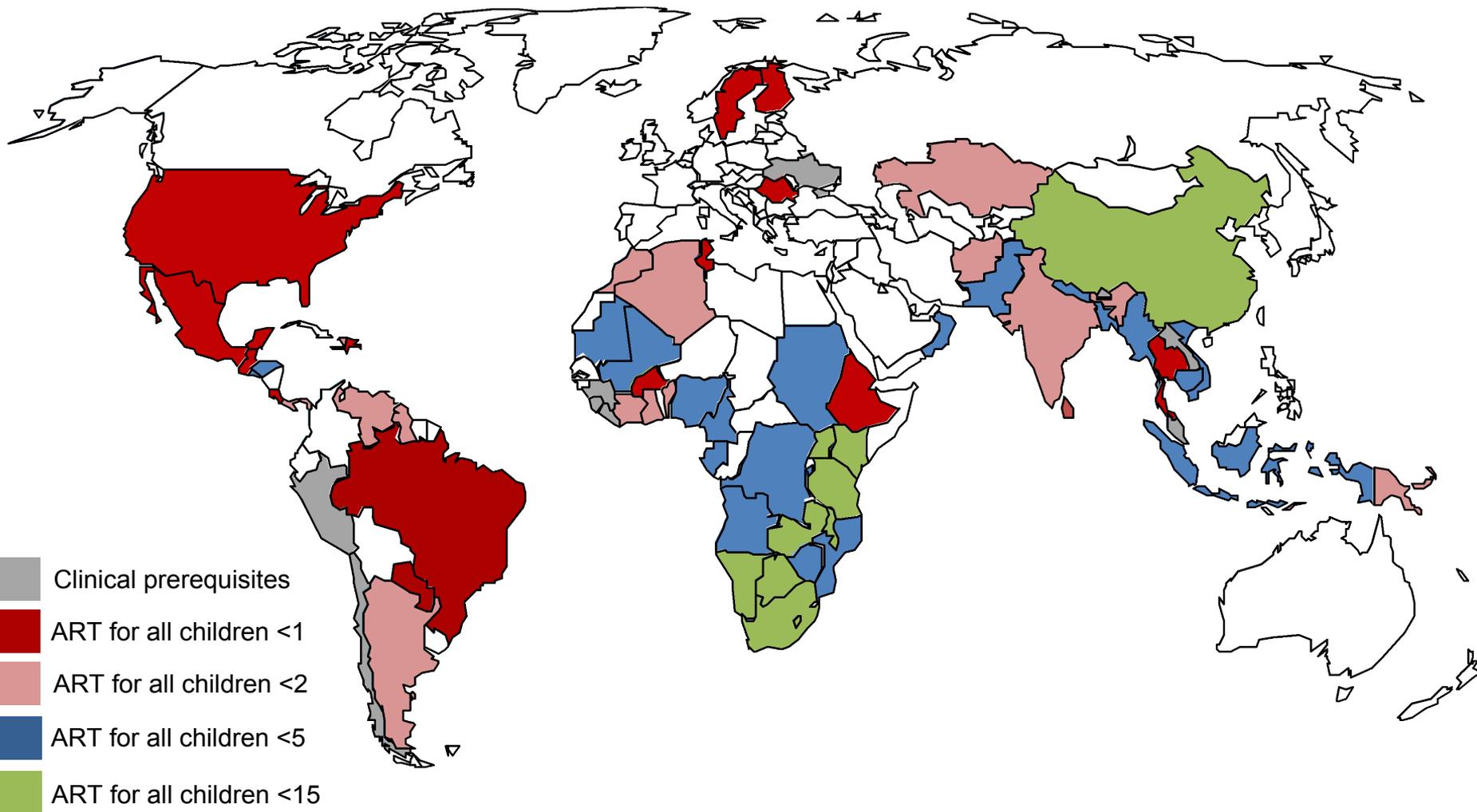
ART initiation for asymptomatic people

ART initiation criteria	No. of Countries	People with HIV (2015)	Countries
Irrespective of CD4 count	30	14,537,000 (40%)	Argentina, Australia, Austria, Botswana, Brazil, British Columbia (Canada), China, Denmark, France, Germany, Italy, Japan, Kenya, Korea (Republic), Lesotho, Malawi, Maldives, Mexico, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, South Africa, Spain, Sweden, Thailand, Turkey, United Kingdom, United States
Consider for >500	5	284,000 (0.8%)	Colombia, Greece, Guyana, Hong Kong, Venezuela
≤500	39	13,110,000 (36%)	Algeria, Bangladesh, Bhutan, Bolivia, Burundi, Cambodia, Cameroon, Chile, Democratic Republic of Congo, Ecuador, El Salvador, Ethiopia, Fiji, Gabon, Haiti, Honduras, Madagascar, Mali, Mauritania, Moldova, Myanmar, Namibia, Nepal, Nigeria, Oman, Pakistan, Rwanda , South Sudan, Sri Lanka , Sudan, Swaziland, Tanzania, Tunisia, Uganda, Ukraine, Uruguay, Viet Nam, Zambia, Zimbabwe
≤350 (consider for CD4 ≤ 500)	4	136,000 (0.4%)	Belize , Costa Rica , Finland, Guinea
≤350	32	6,153,600 (17%)	Afghanistan, Angola, Benin, Burkina Faso, Canada, Cote d'Ivoire, Croatia, Djibouti, Dominican Republic, Ghana, Guatemala , India , Indonesia, Jamaica, Kazakhstan, Latvia, Malaysia, Marshall Islands, Morocco , Mozambique, Nicaragua, Niger, Panama , Papua New Guinea, Paraguay, Peru, Samoa, Sierra Leone, Switzerland, Timor-Leste , Tuvalu, Vanuatu
≤300	1	200 (<0.1%)	Macedonia
≤200 (consider for CD4 ≤ 350)	6	1,466,000 (4%)	Belarus, Cape Verde , Cuba , Estonia, Hungary, Russia
≤200	5	130,000 (0.4%)	Comoros , Lao PDR , Liberia , Philippines , Senegal

Source: published policy

ART eligibility criteria for children <15 years

WHO 2015 Guidelines: ART irrespective of CD4 count



Source: published policy