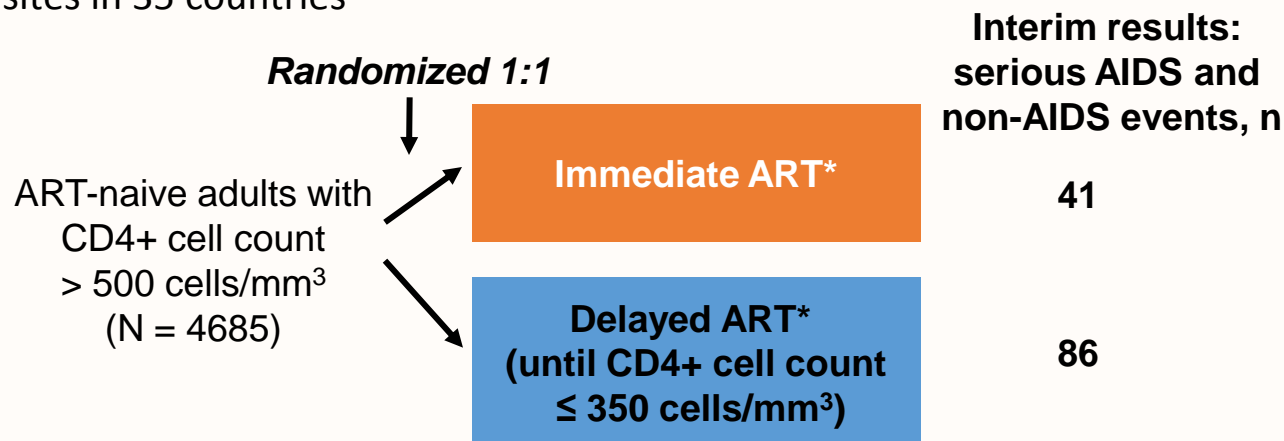


# TOOLS AND STRATEGIES TO END THE AIDS EPIDEMIC BY 2030

# START: Immediate vs Deferred ART

- International, randomized phase IV study
  - 215 sites in 35 countries

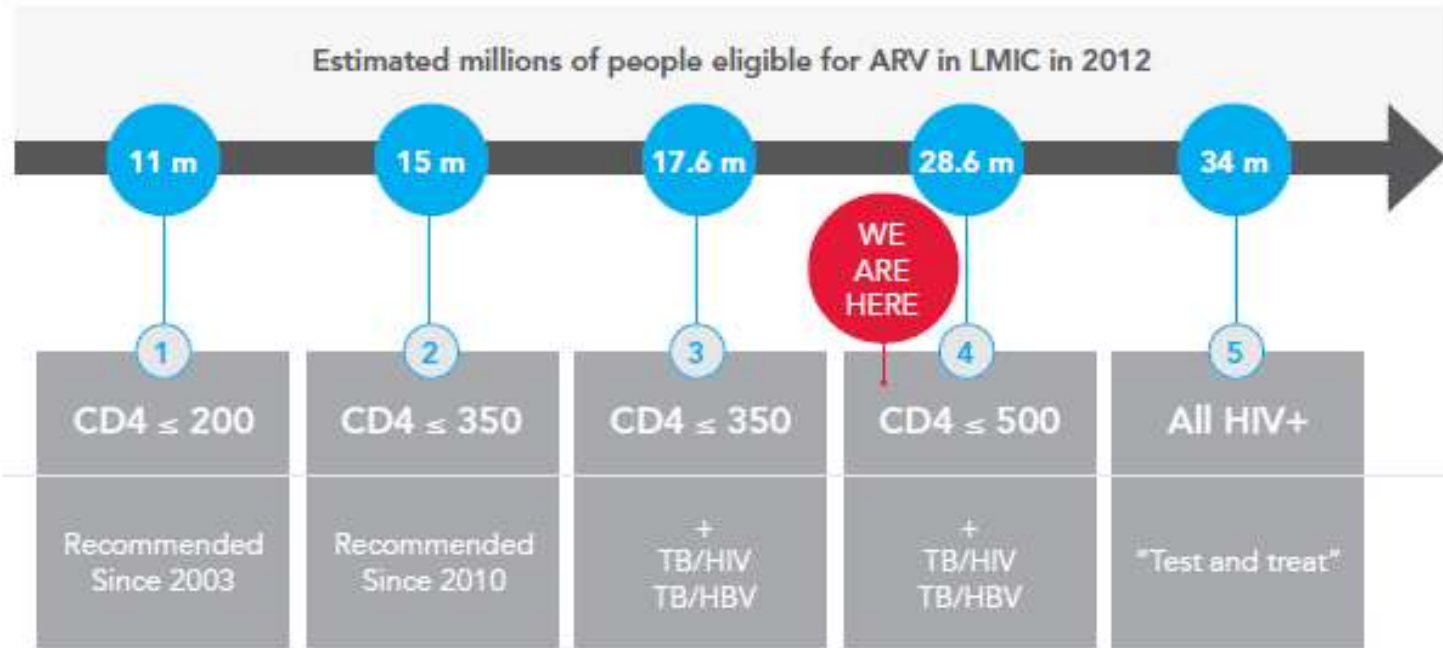


\*Any licensed ART allowed, according to national guidelines.

- **Study stopped by data and safety monitoring board** following results of interim analysis
  - Risk of serious illness or death reduced by 53% with immediate ART
  - Rates of serious AIDS-related and non-AIDS-related events lower in immediate ART arm

ClinicalTrials.gov. NCT00867048. NIH Press Release, May 27, 2015.

## SCENARIOS OF ANTIRETROVIRAL TREATMENT ELIGIBILITY: WHO VISION



Scenarios of ARV eligibility

ART regardless of CD4 count for:

- Serodiscordant couples
- Pregnant women
- Children < 5 years

Source: WHO 2014

■ By 2020, 90% of all people living with HIV will know their HIV status.

■ By 2020, 90% of all people receiving antiretroviral therapy will have viral suppression.

■ By 2020, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy.

#### THE TREATMENT TARGET



diagnosed

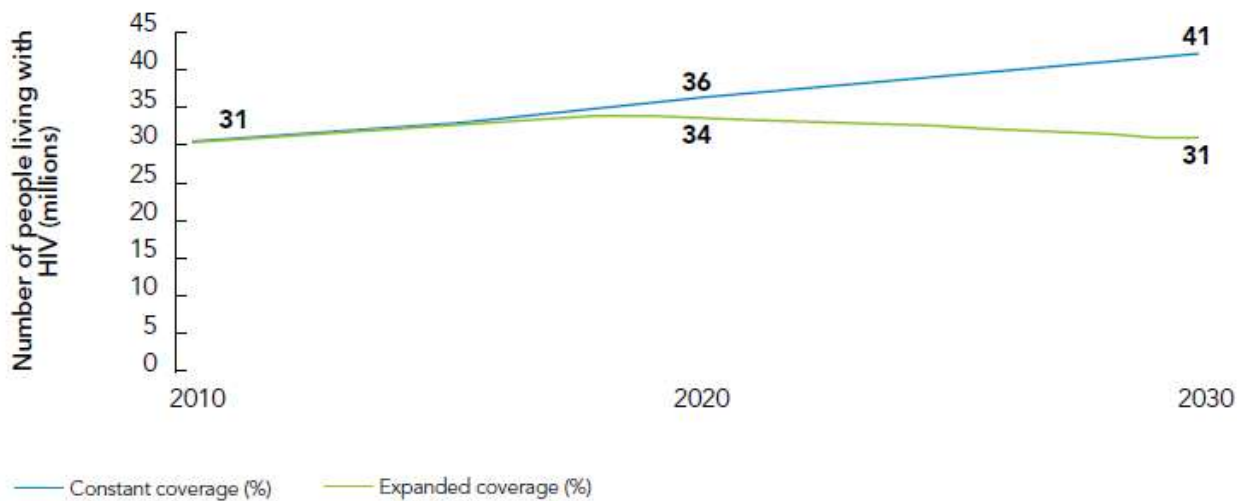


on treatment



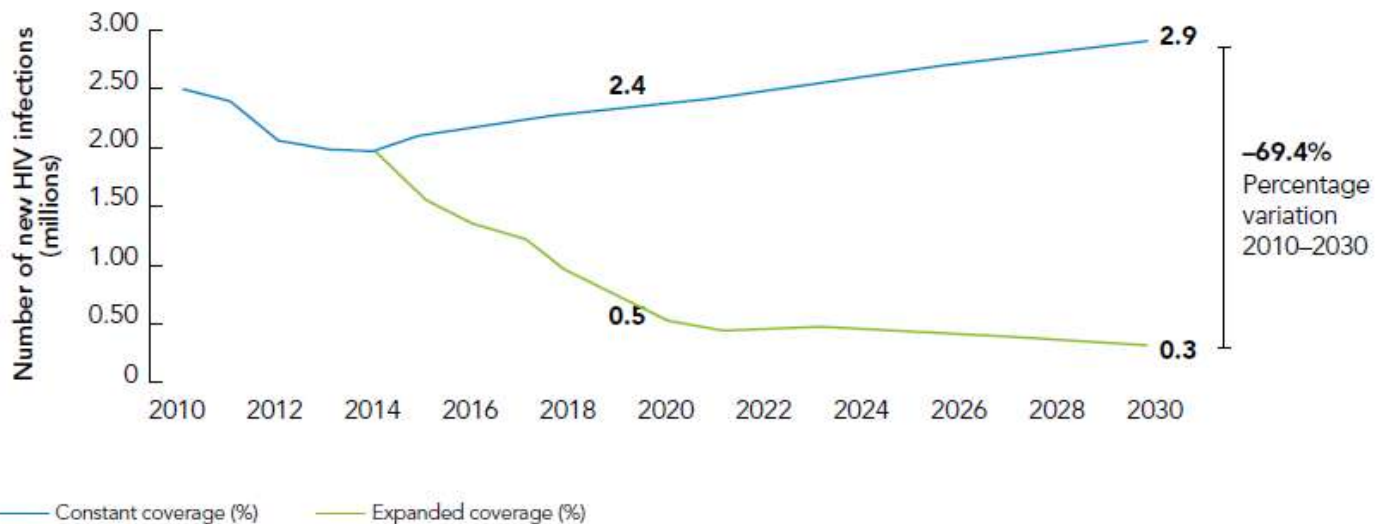
virally suppressed

Ending AIDS scenario: **people living with HIV (2010–2030)**



Source: UNAIDS 2014 estimates.

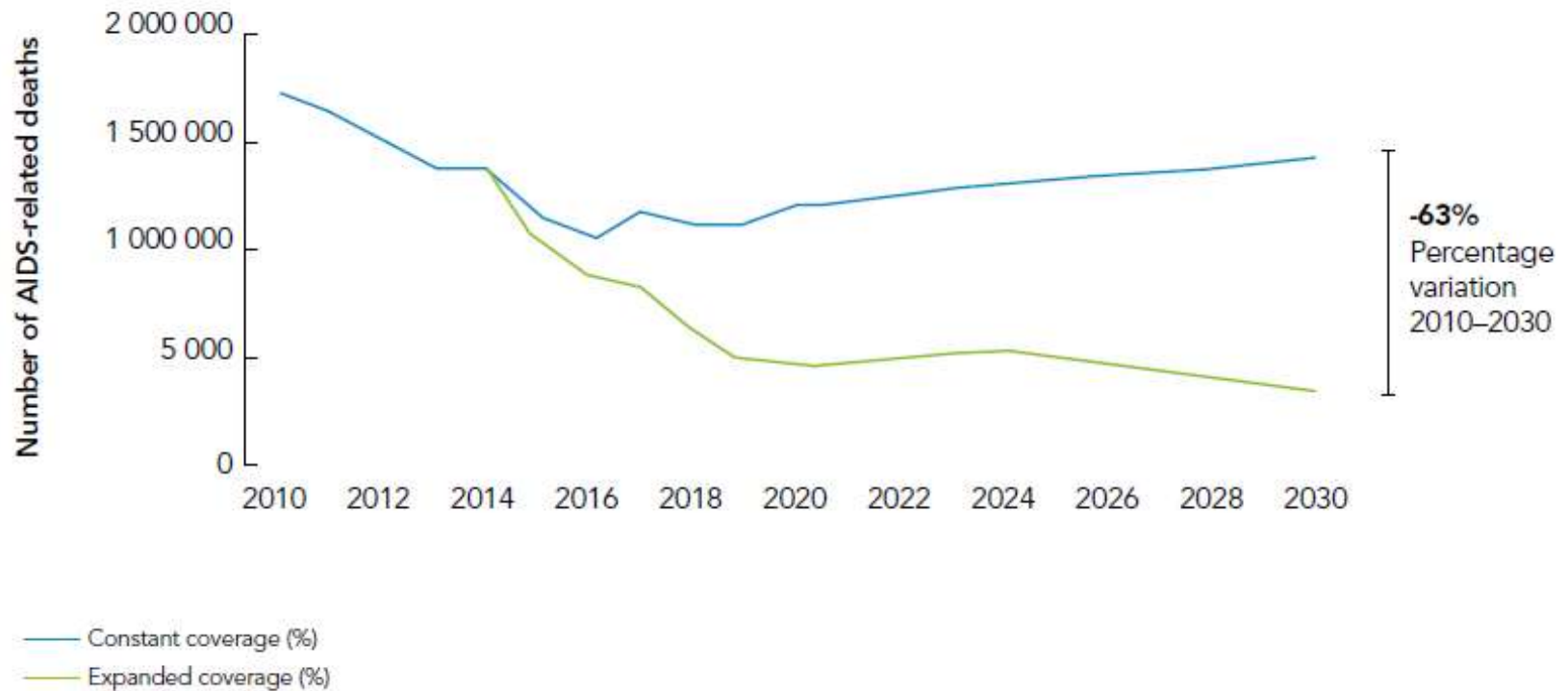
Ending AIDS scenario: **new HIV infections (2010–2030)**



Source: UNAIDS 2014 estimates.

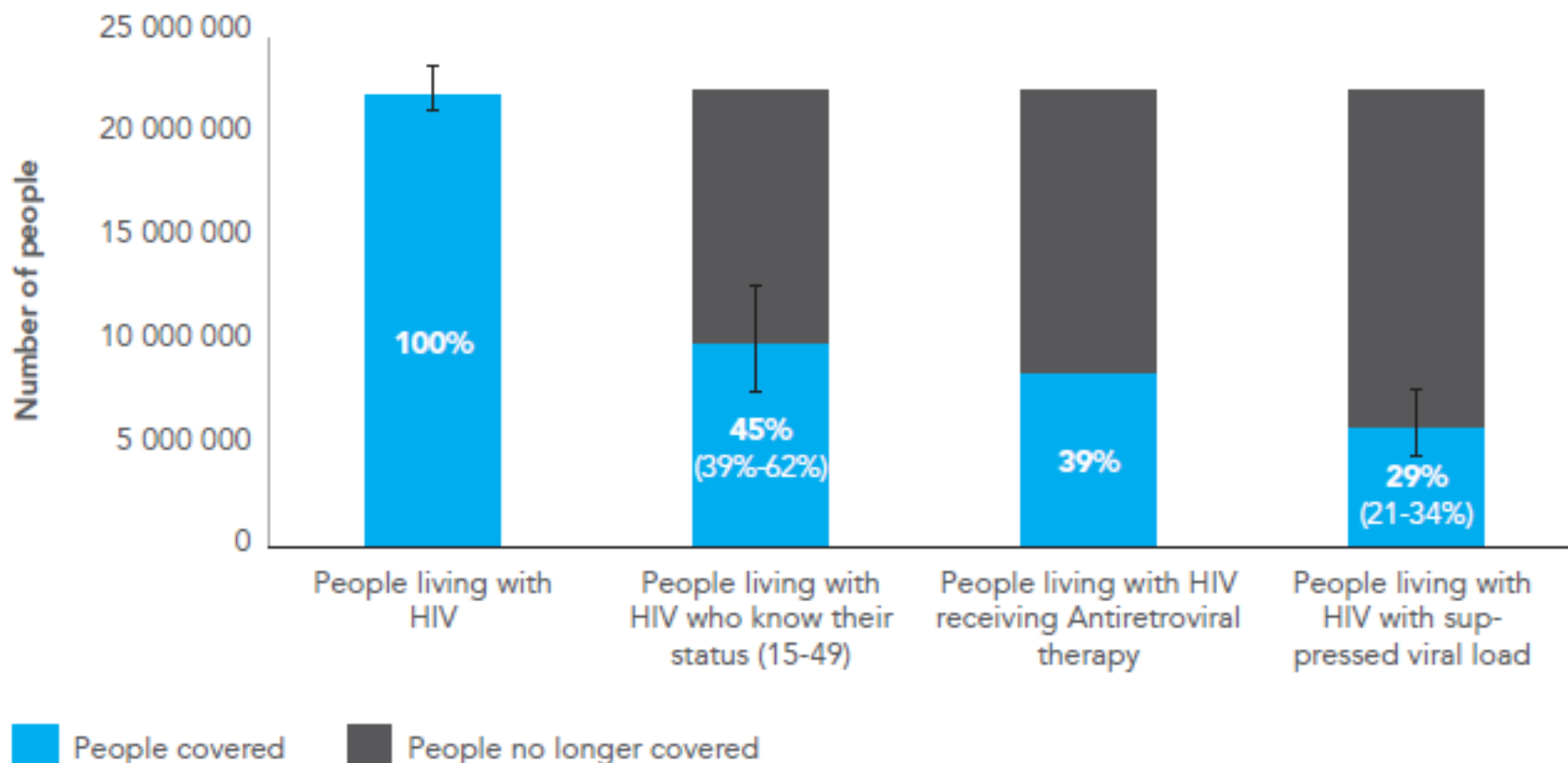


## Ending AIDS scenario: AIDS-related deaths (2010–2030)

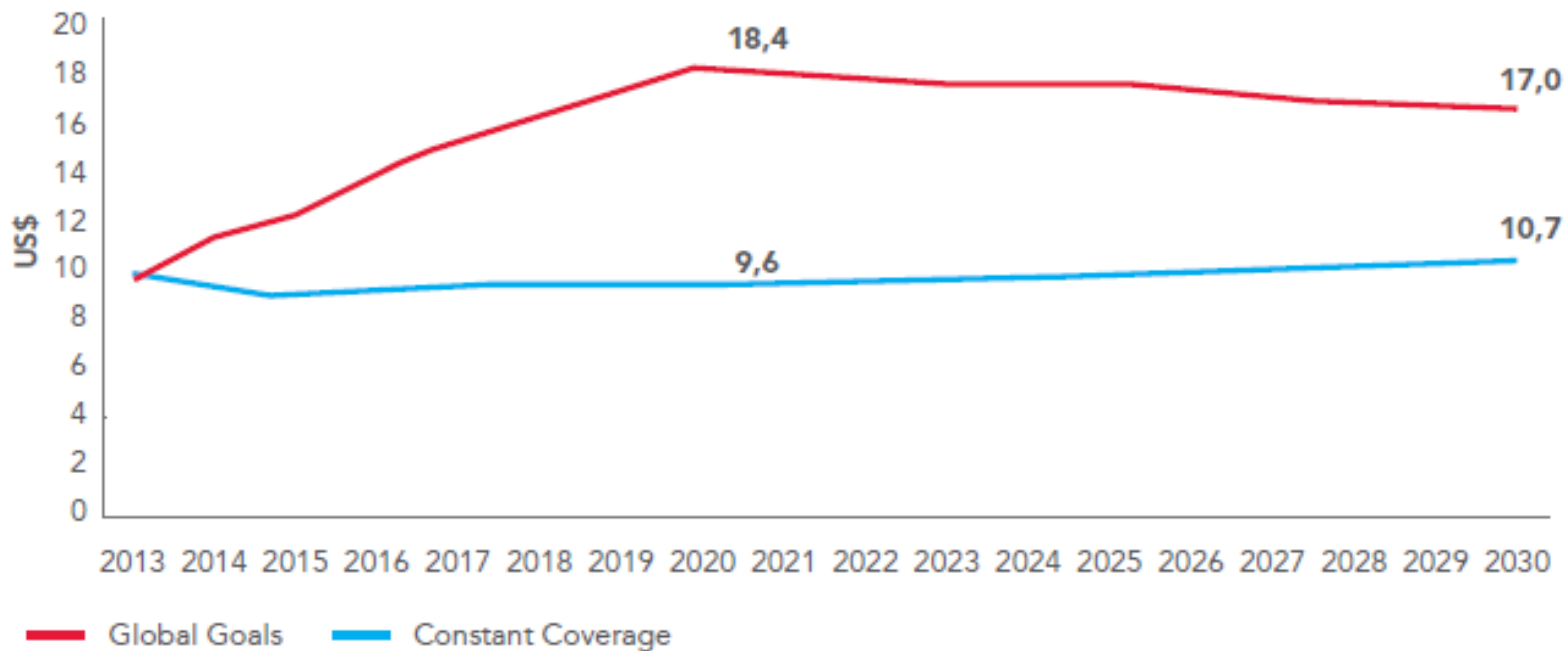


Source: UNAIDS 2014 estimates.

**ABBREVIATED HIV TREATMENT CASCADE FOR ADULTS IN SUB-SAHARAN AFRICA AGED 15 YEARS OR MORE, 2013**



RESOURCE NEEDS FOR **TREATMENT COSTS** FOR CONSTANT COVERAGE AS OF 2013 AND FOR THE 90-90-90 TARGET



Source: UNAIDS Global Price Tag Estimates, September 2014. Unpublished results.

Is health perceived as a real priority by International community?



UNAIDS is committed to working in partnership with the full array to essential stakeholders – including but not limited to national governments; WHO, the Global Fund, PEPFAR and other donors; civil society, including people living with HIV and key populations; the private sector; professional medical groups; and others – to make the 90-90-90 target a reality.

The tools and strategies now exist to end the AIDS epidemic by 2030. However, getting there requires unprecedented action now to **scale up early antiretroviral therapy**, as delay will merely allow the epidemic to continue to outpace the response.

# MAIN CHALLENGE

## ELIMINATION OF HIV IN ITALY

### CURRENT SITUATION

#### ▶ PLWH

Dx, in care  
Dx, in cART

### ESTIME

115 – 155.000

95.000

85.000

#### ▶ New HIV cases

Late presenters  
Not in cART  
Screening

4.000 yearly

>60%

60 – 70%

symptom based

### WHAT TO DO

90% screening of key populations

- MSM
- MPHSx
- IDUs
- Prisoners
- Migrants

#### POS

90% treat  
90% retention in care  
contact tracing

#### NEG

counseling  
re-testing

## Some achievements until 2014

- Berlin patient
- Visconti cohort
- Mississippi baby

## The IAS launched “Towards an HIV cure initiative” at the IAC in 2012

### At IAC 2015

- Paris girl
- Broadly neutralizing antibodies
- Gene therapy  
(Zinc finger nucleose-edited, CCR5 – deleted hematopoietic stem cell)



2006-2007

- Merck's **HIV vaccine** fails in clinical trials -- the latest in a long line of vaccine failures.

But new vaccines are still in development.

The last based on broadly **neutralizing antibodies**

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## **Biomedical Research in an Era of Unlimited Aspirations and Limited Resources**

Anthony S. Fauci