

How has the Polio Eradication Initiative 'influenced' the global AIDS response?

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Presentation Outline

- “Big history” of global HIV epidemic
- Current status of HIV and the global AIDS response
- Lessons learnt from PEI
- Challenges for HIV ‘epidemic control’
- Moving forward

1981: First Clinical Description of AIDS

-1-

1981 June 5;30:250-2

Pneumocystis Pneumonia – Los Angeles

In the period October 1980-May 1981, 5 young men, all active homosexuals, were treated for biopsy-confirmed *Pneumocystis carinii* pneumonia at 3 different hospitals in Los Angeles, California. Two of the patients died. All 5 patients had laboratory-confirmed previous or current cytomegalovirus (CMV) infection and candidal mucosal infection. Case reports of these patients follow.

MMWR 1981:30:250-252



1983: Discovery of HIV as the cause of AIDS



Isolation of a T-Lymphotropic Retrovirus from a Patient at Risk for Acquired Immune Deficiency Syndrome (AIDS)

Abstract. *A retrovirus belonging to the family of recently discovered human T-cell leukemia viruses (HTLV), but clearly distinct from each previous isolate, has been*



Frequent Detection and Isolation of Cytopathic Retroviruses (HTLV-III) from Patients with AIDS and at Risk for AIDS

Abstract. *Peripheral blood lymphocytes from patients with the acquired immunodeficiency syndrome (AIDS) or with signs or symptoms that frequently precede AIDS*



1996: Discovery of “Highly Active Anti-Retroviral Therapy” (ART) for AIDS



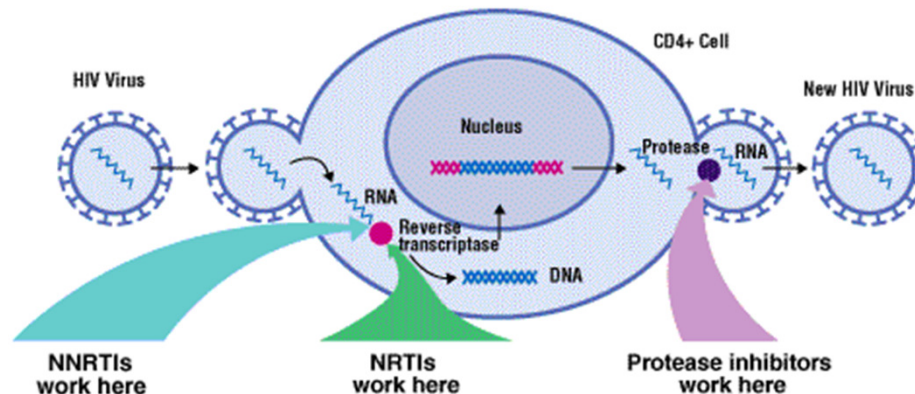
The NEW ENGLAND
JOURNAL of MEDICINE

A TRIAL COMPARING NUCLEOSIDE MONOTHERAPY WITH COMBINATION
THERAPY IN HIV-INFECTED ADULTS WITH CD4 CELL COUNTS
FROM 200 TO 500 PER CUBIC MILLIMETER

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Highly active antiretroviral therapy (HAART)

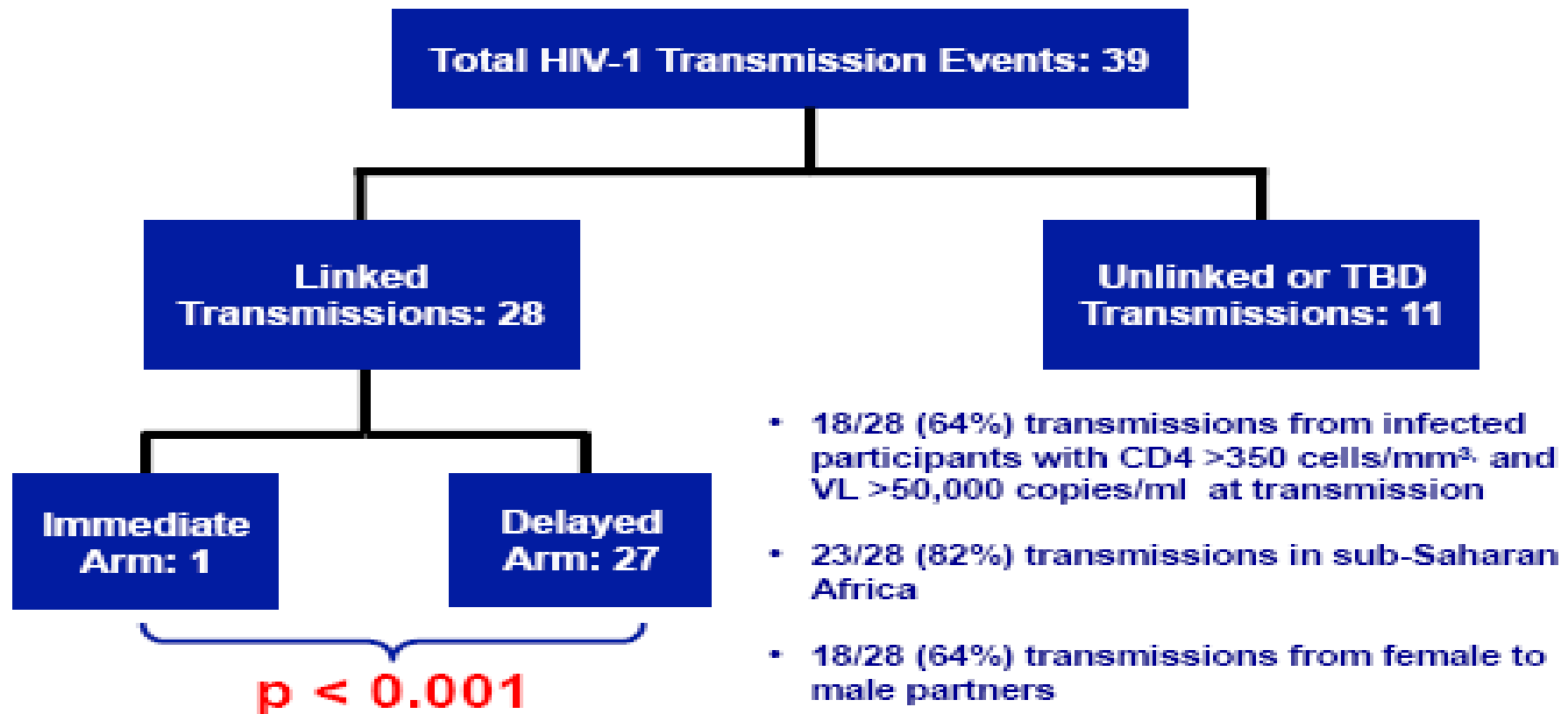


Before ART After ART



2011: Emergence of HIV Treatment as Prevention

HPTN 052: HIV-1 Transmission



The
Economist

The trap for Turkey
Wall Street's plumbing problem
Lady Gaga, Mother Teresa and profits
Brazil's boiling economy
The farce that is FIFA

JUNE 4TH - 10TH 2011

Economist.com

The end of AIDS?



PEPFAR BLUEPRINT: CREATING AN AIDS-free GENERATION



2015



FAST-TRACK

ENDING THE AIDS EPIDEMIC BY 2030

By 2020...

90%

**of all people living
with HIV will
know their HIV
status**

90%

**of all people
diagnosed with
HIV will receive
sustained
antiretroviral
therapy.**

90%

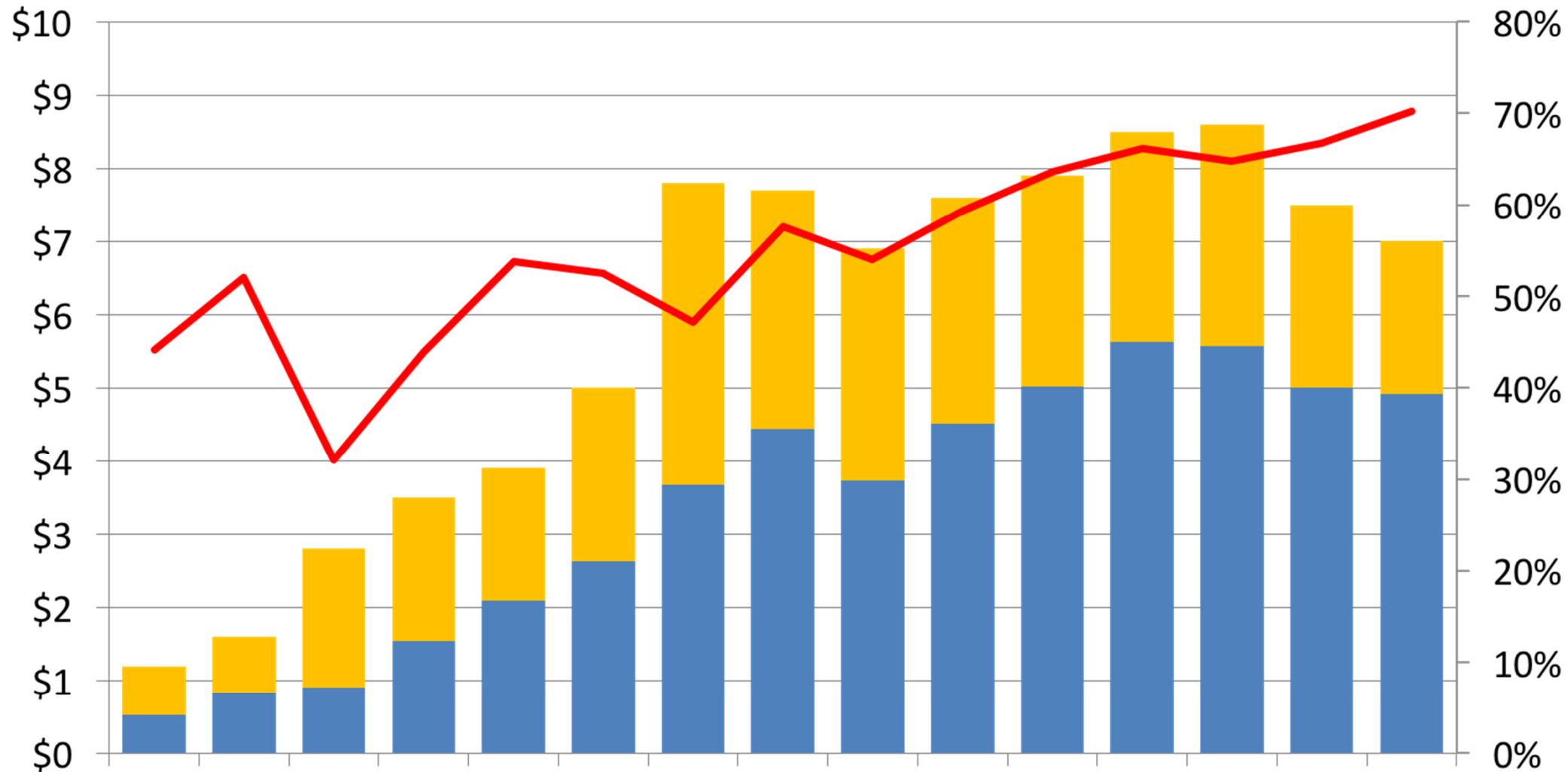
**of all people
receiving
antiretroviral
therapy will have
durable
suppression.**

International Funding for HIV/AIDS

2002-2016

\$ Billion

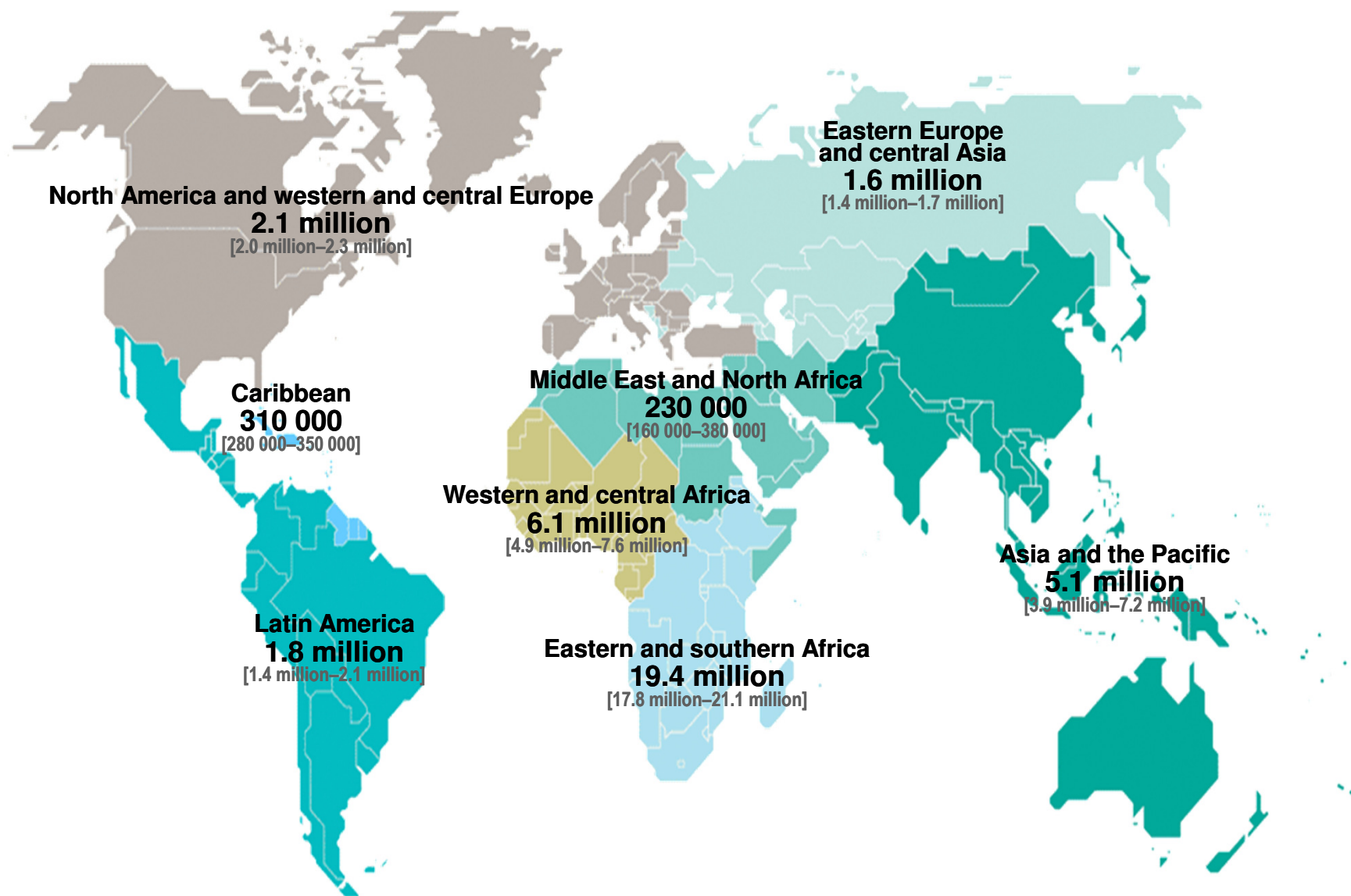
% US



United States Other % US

Source: Kaiser Family Foundation, 2017

Adults and children estimated to be living with HIV | 2016

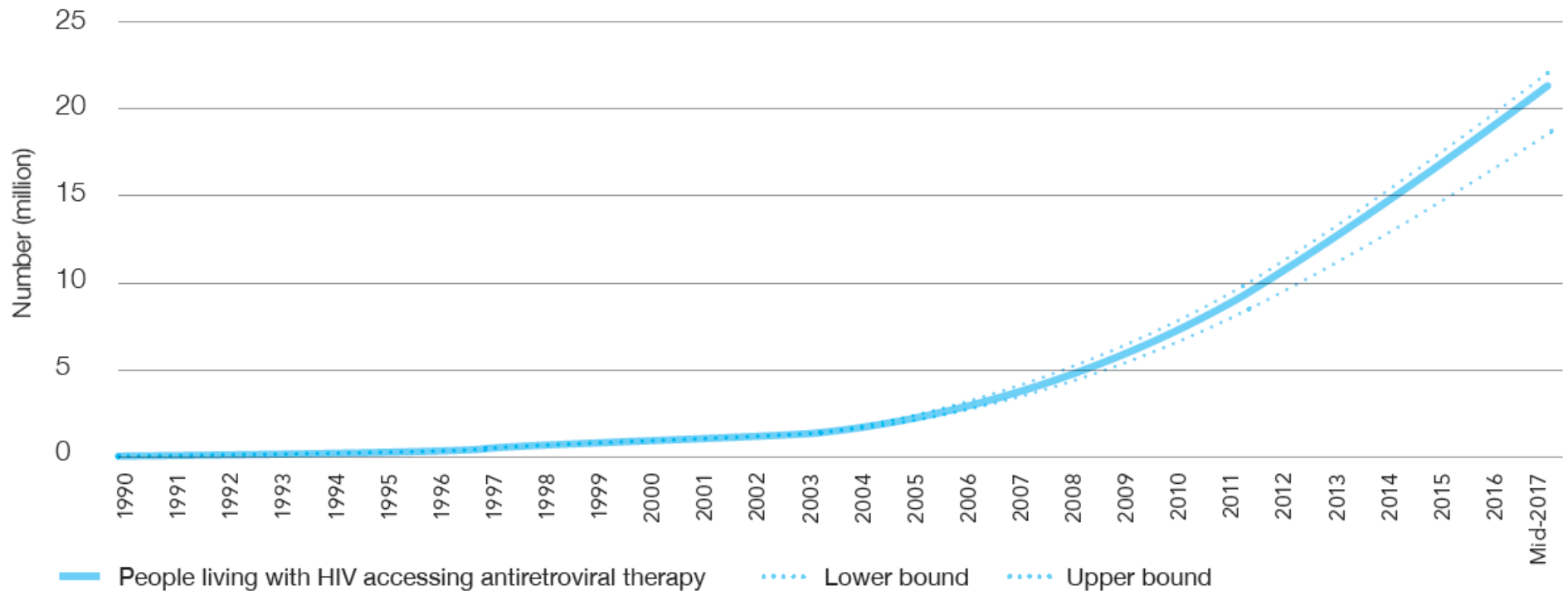


Total: 36.7 million [30.8 million–42.9 million]



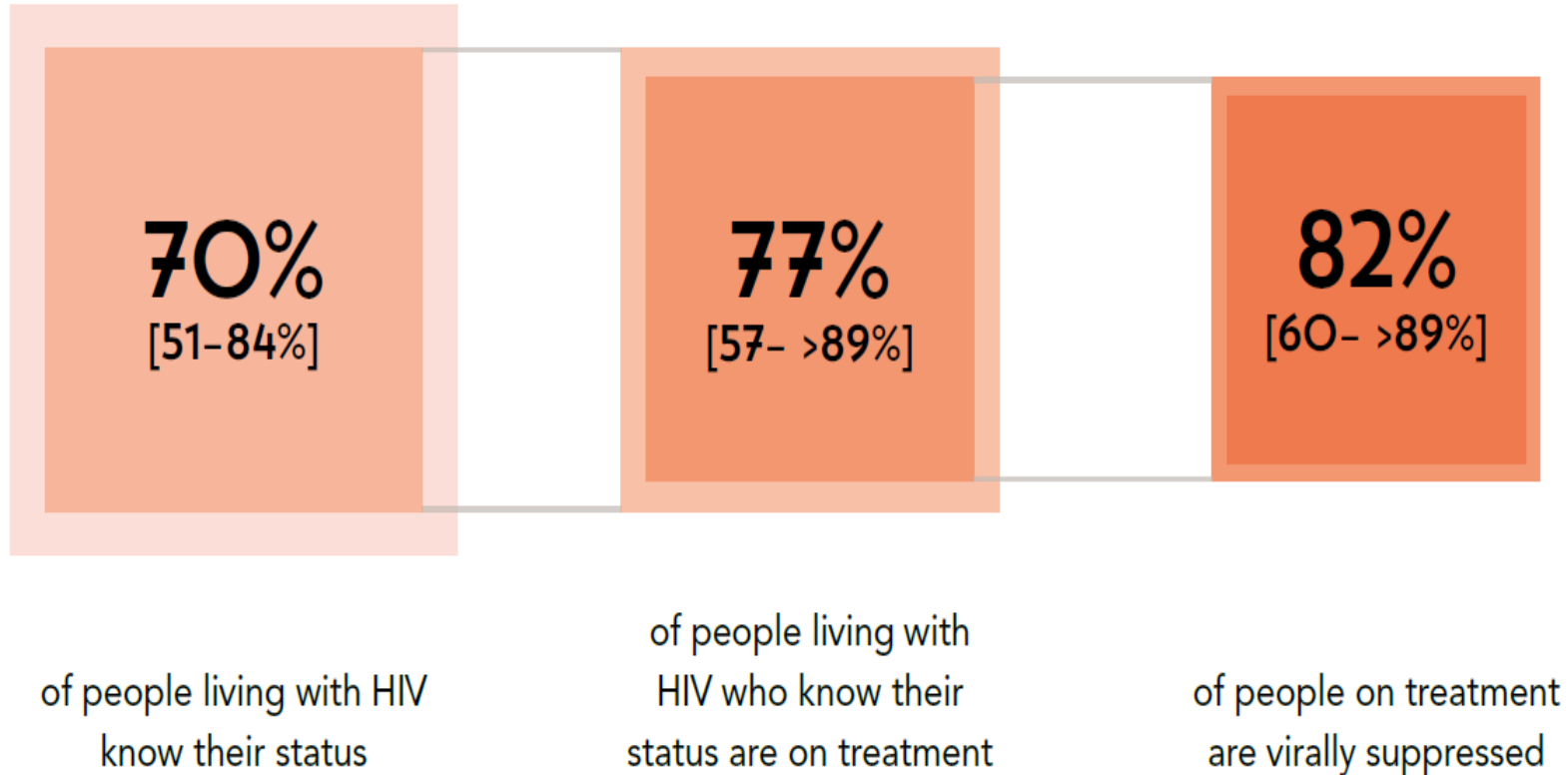
20.9 million people on treatment

Number of people (all ages) accessing antiretroviral therapy, global, 1990 to mid-2017



Source: Global AIDS Monitoring, 2017.

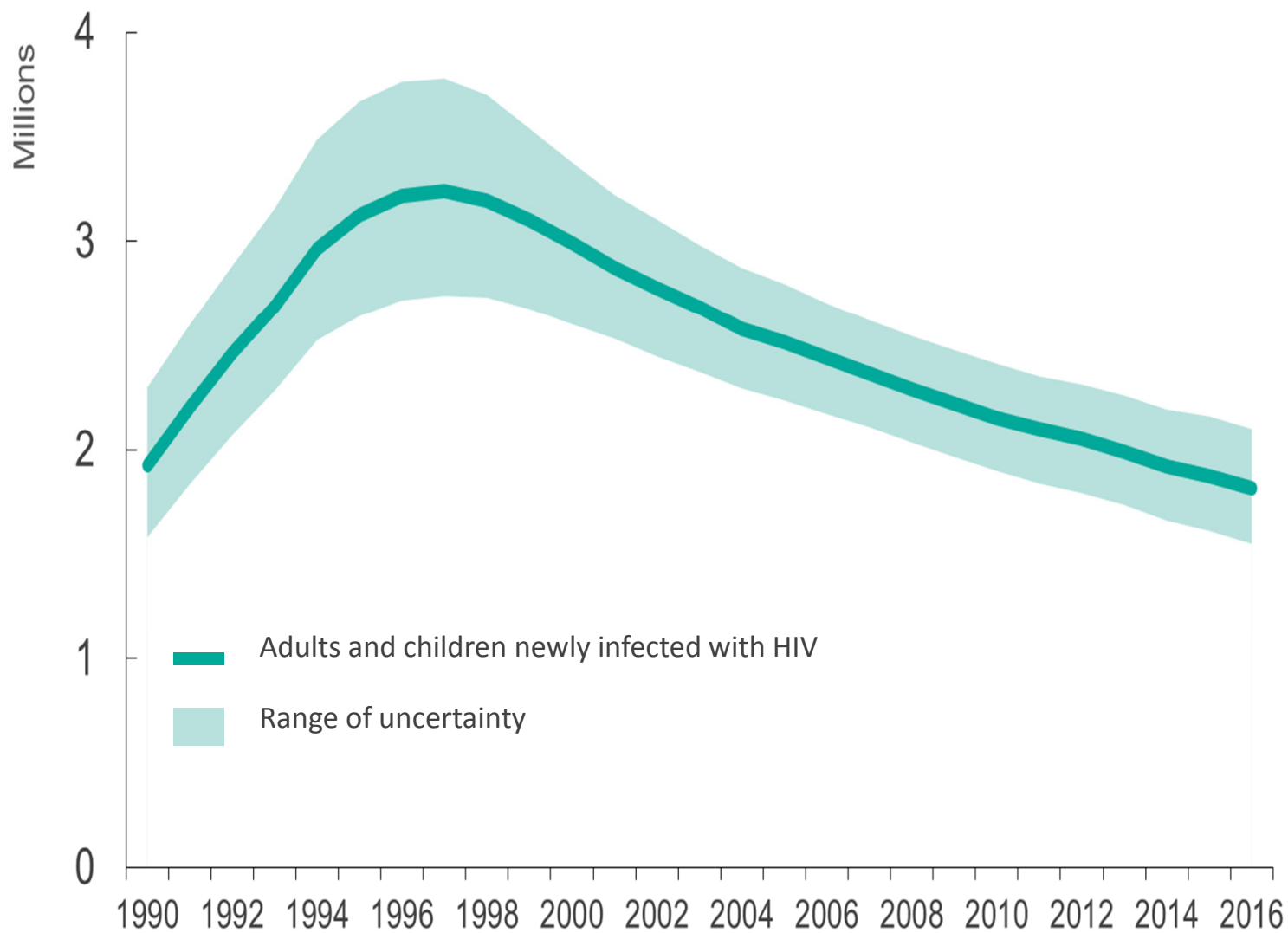
CLOSING IN ON A FAST-TRACK TARGETS



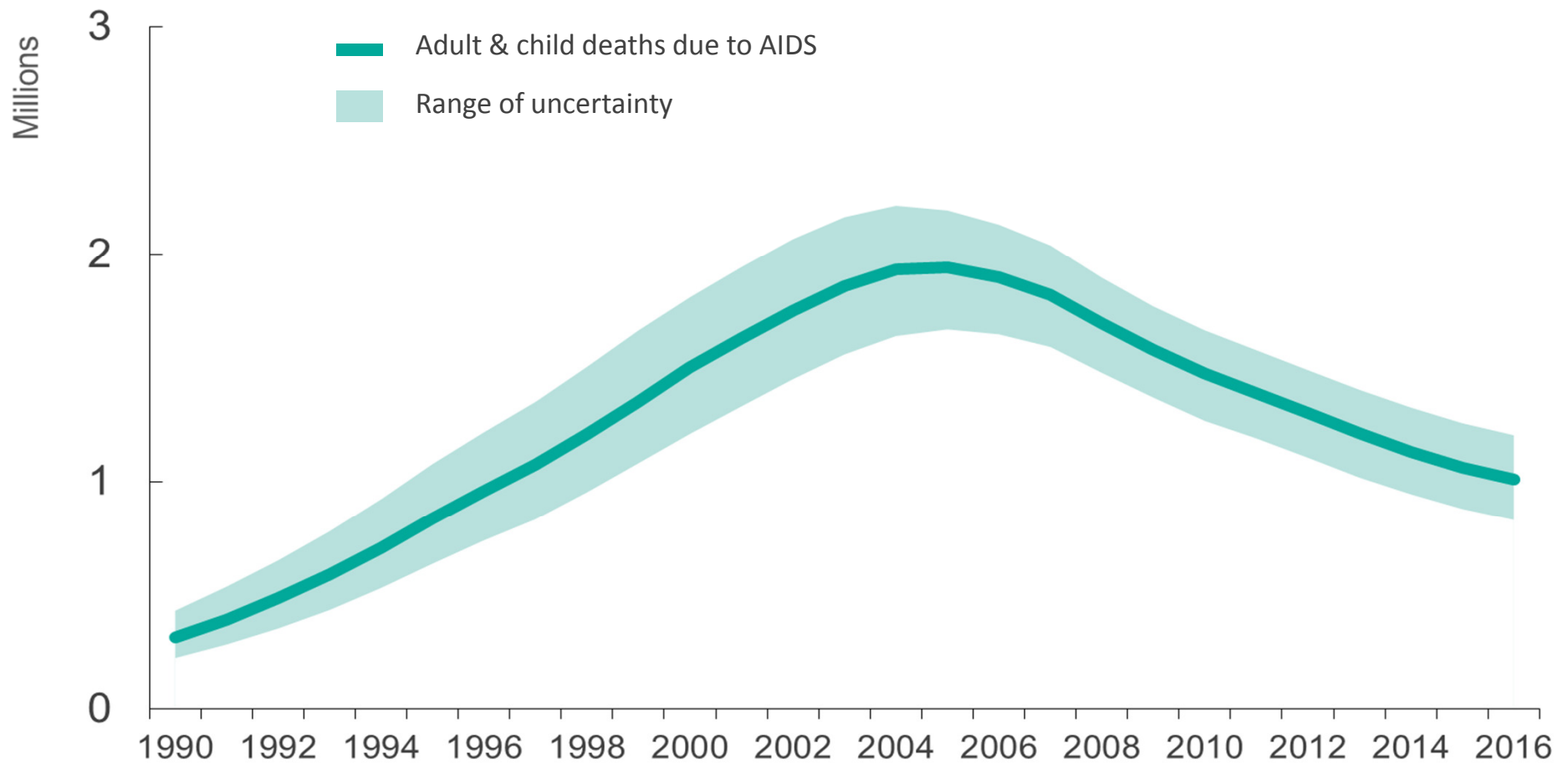
PROGRESS TOWARDS THE 90-90-90 TARGETS, GLOBAL, 2016

Source: UNAIDS special analysis, 2017; see annex on methods for more details

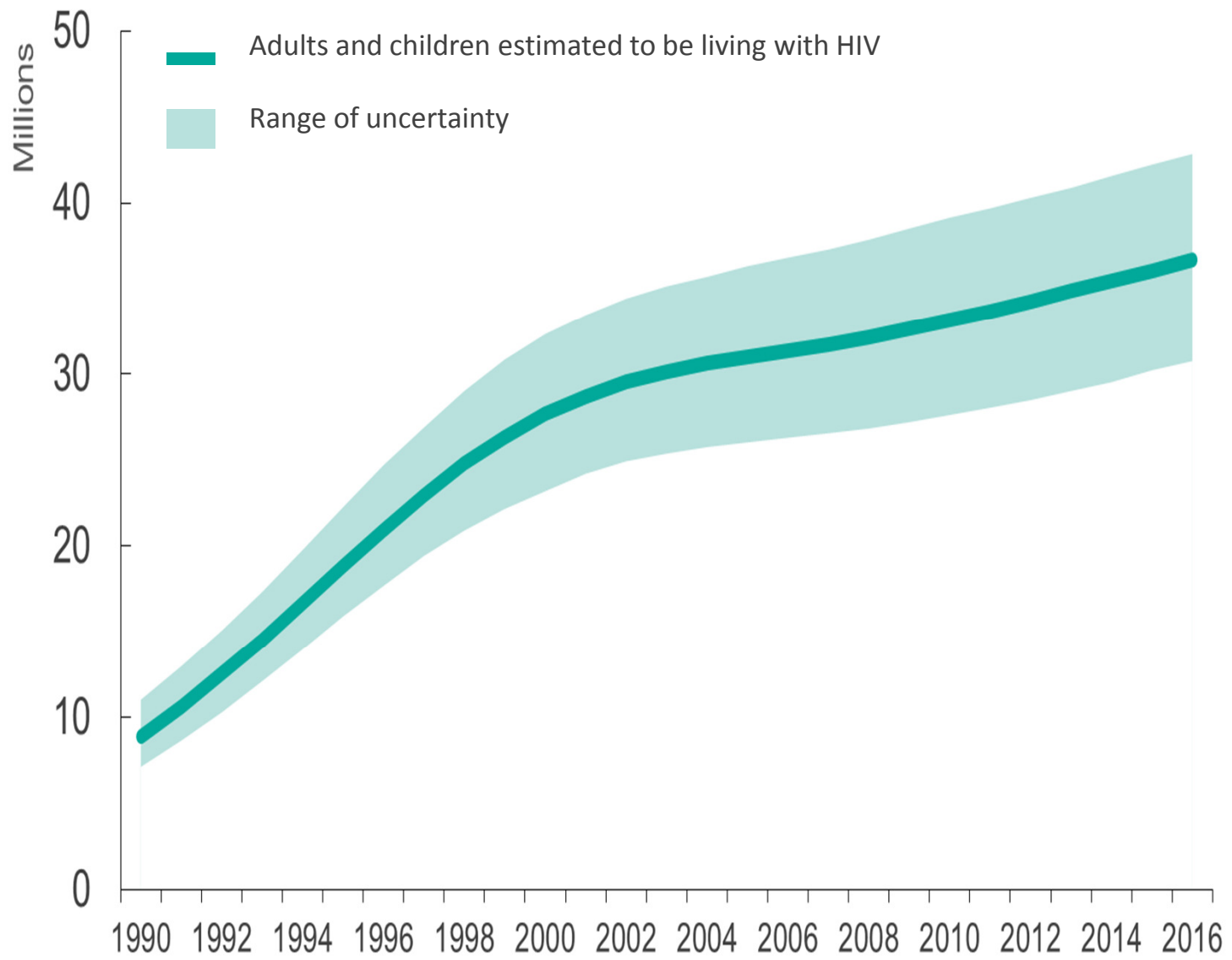
18% reduction in HIV incidence since 2000



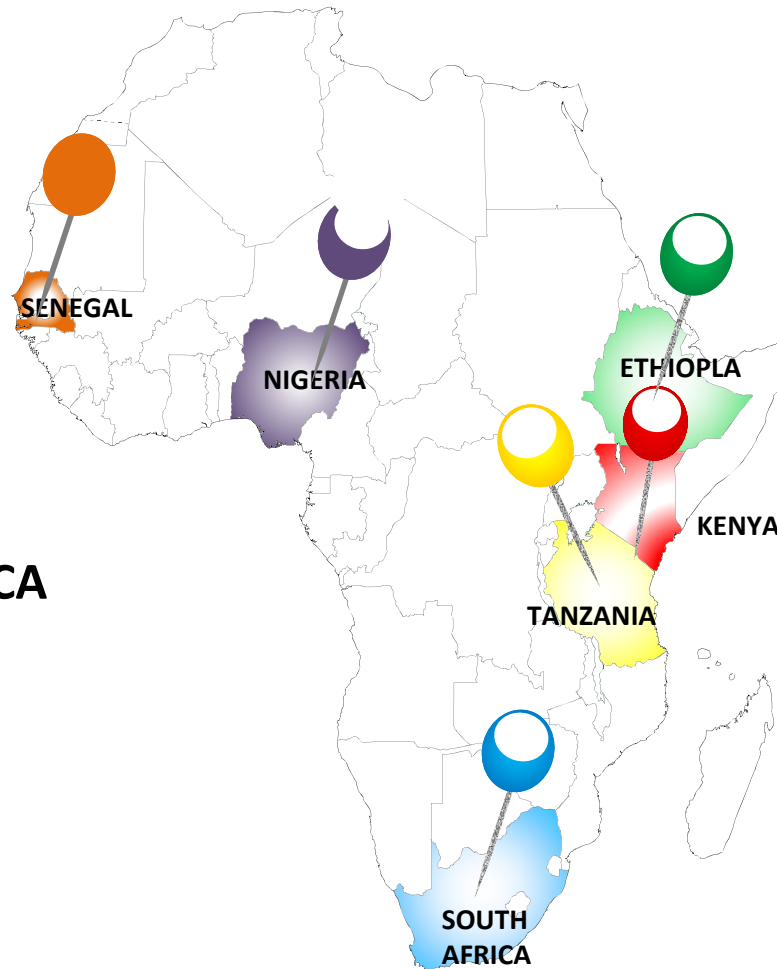
33% reduction in annual AIDS-related deaths since 2000



10.5% increase in Persons Living with HIV since 2000



Goal 4: Network of Public Health Reference Laboratories



- Foster networks between laboratories for surveillance and early disease detection
- Improve assessment of new products and regulatory harmonization
- Build a south-south training programmes
- Establish an international network for proficiency testing

What HIV has learned from Polio

1. Careful surveillance is key
2. Goals determine strategies
3. Coverage x Effectiveness = Impact
4. Laboratory plays central role
5. Campaigns complement routine services
6. Community mobilization & service delivery
7. The challenge of sustainability

Challenges for HIV epidemic control

- HIV incidence > HIV mortality = growing epidemic
- Weak health and laboratory infrastructure in high burden countries
- Key Populations
- Competing health priorities (e.g., Ebola, diabetes, cancer)
- Long-term financing??
- Assuring **lifelong** treatment to all PLHIV? Adherence?
- No vaccine or cure in short-term
- Ongoing stigma, discrimination & marginalization
- Gender inequality and assuring respect for human rights

Moving forward

- Incredible progress since 1981; identified agent, diagnostic tools developed and effective prevention and treatment strategies available
- Although very different viruses & diseases, the Polio Eradication Initiative has greatly influenced the global AIDS response
- Community engagement is key
- ART very effective in preventing AIDS-related deaths and reducing HIV transmission, but no “magic bullet” to end the global AIDS epidemic
- Sustainability is a combination of country ownership, capacity development and financing. Need to develop and sustain national & regional institutions
- Whether the global community can end the global AIDS epidemic by 2030 remains an open question.....