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**UNIVERSITÄT  
BERN**

 **INSELGRUPPE**

# **Test and treat: great expectations but challenges everywhere**

**Gilles Wandeler**

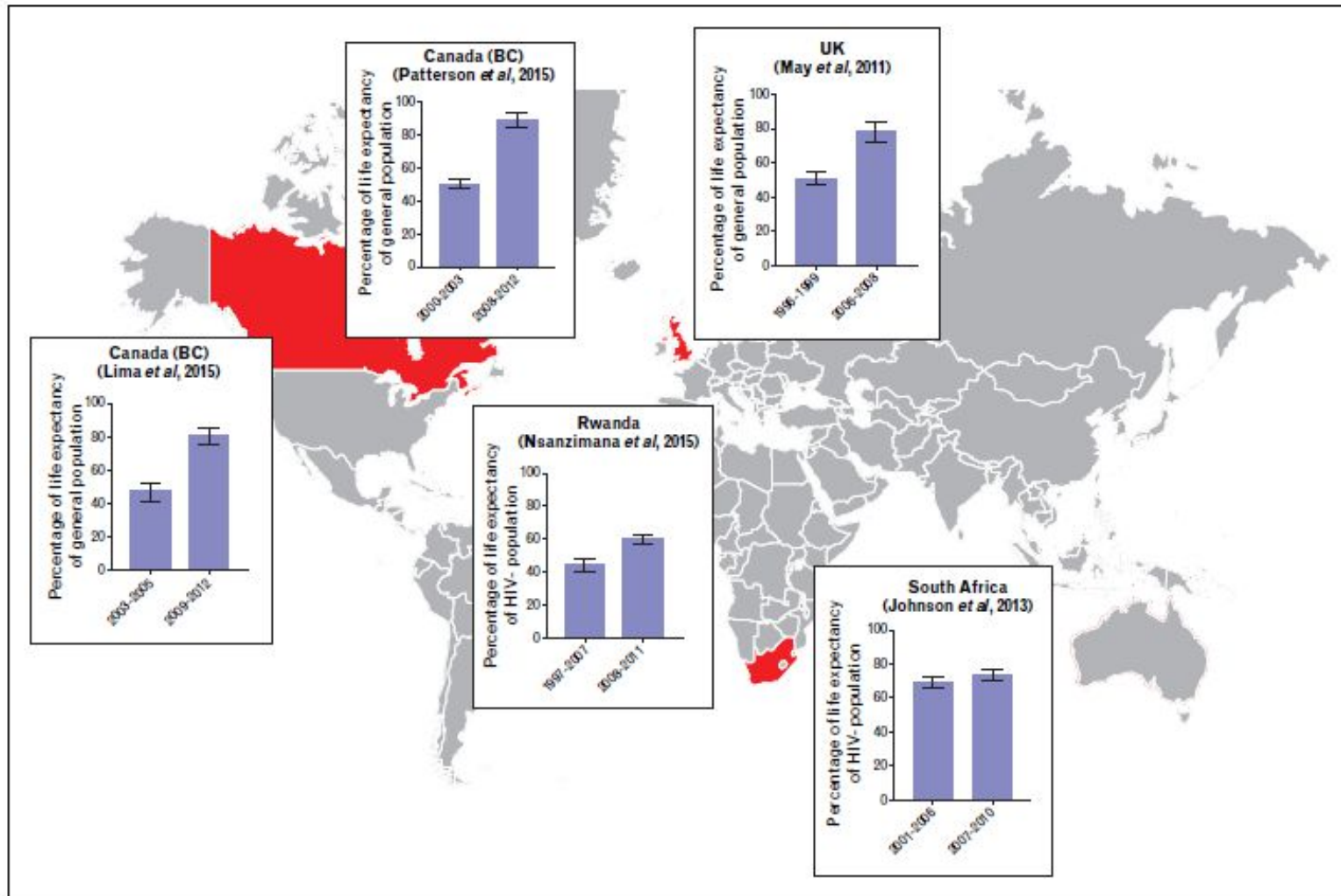
**Department of Infectious Diseases**

**University Hospital Bern**

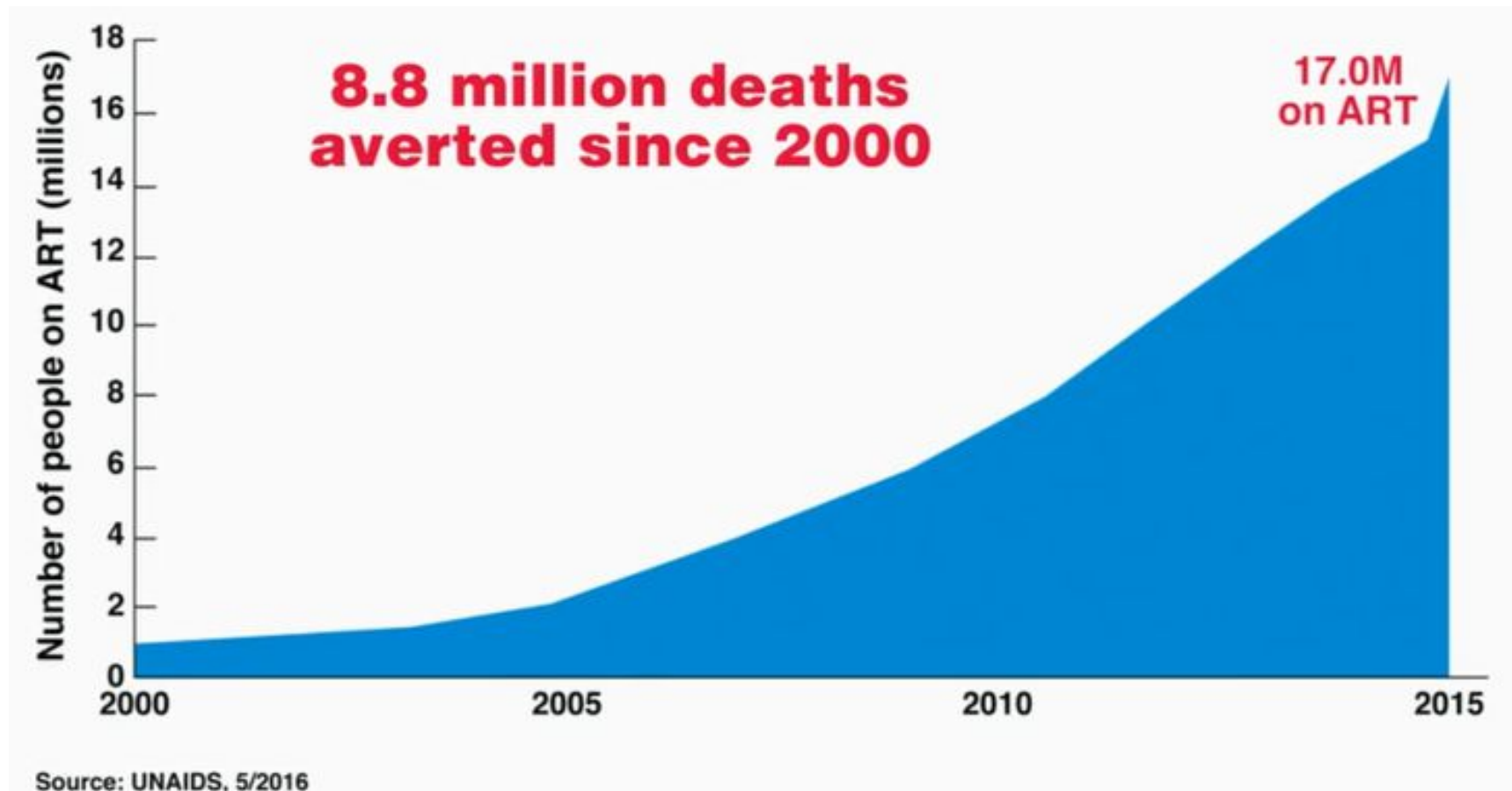
**MMS/aidsfocus.ch Conference 2017**

**10. May 2017**

# Life expectancy with HIV is improving everywhere



# ART coverage has massively improved... ...but still remains below 50%



# Road to elimination

(UNAIDS: 90% reduction of new infections by 2030)

## Prevention continuum

- **Treat all**
- PrEP (PEP)
- PMTCT
- Methods not based on ART (condoms, circumcision, ...)

## Care continuum

- **Early ART for all**

# Road to elimination

## Prevention continuum

- Treat all

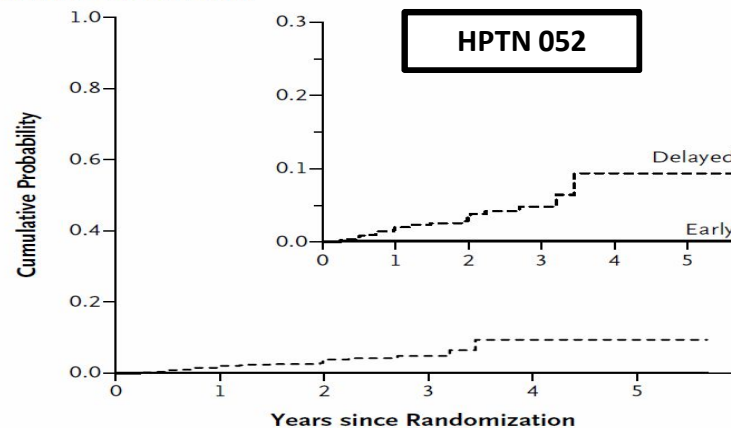
## Care continuum

- Early ART for all

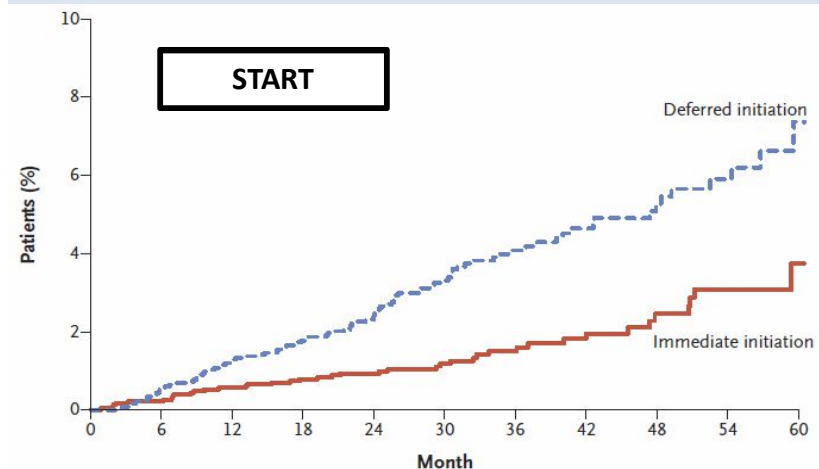
### Test and treat

Scientific evidence is beyond question...  
...but implementation is challenging

A Linked HIV Transmission

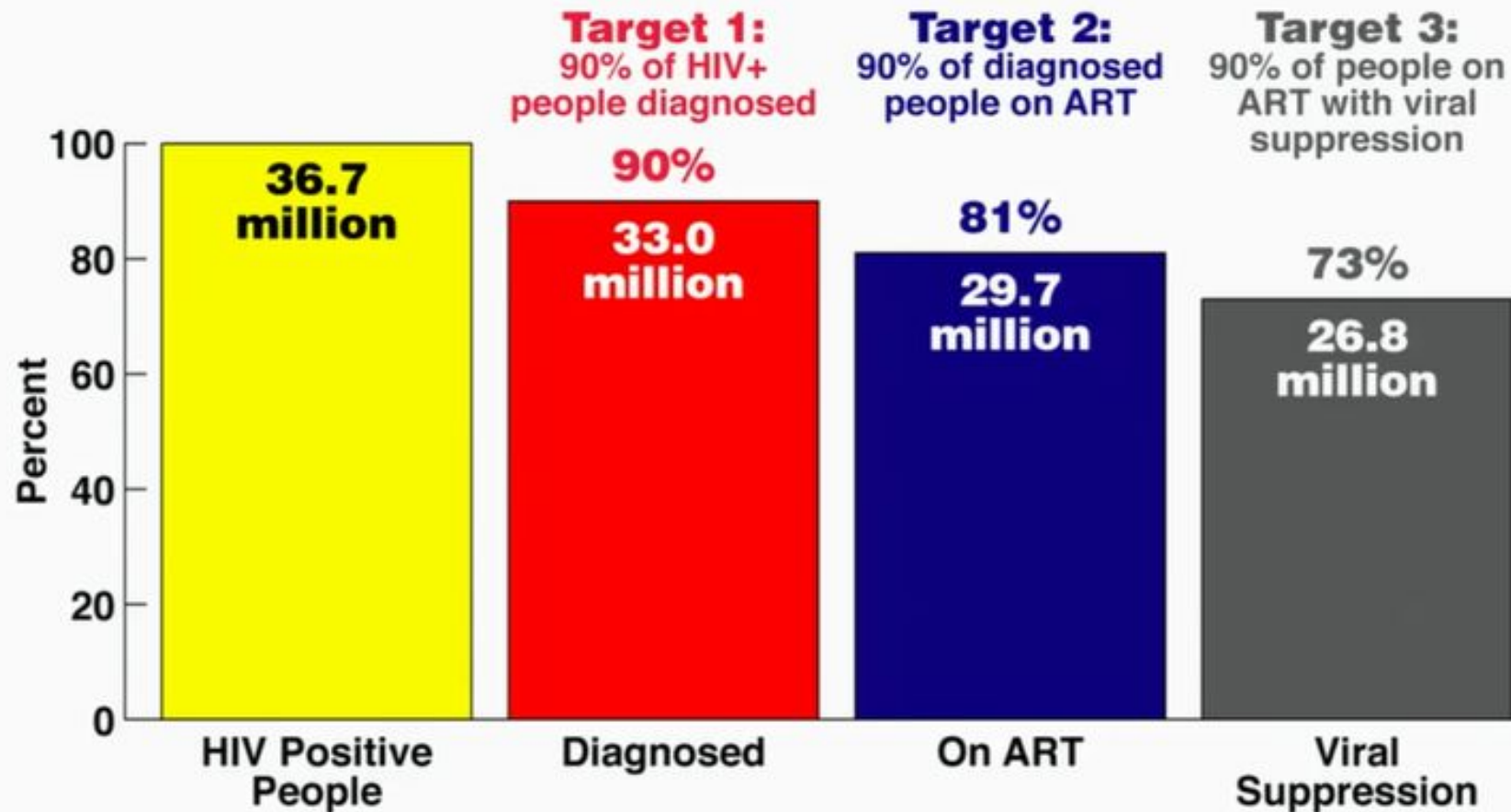


Cohen et al. *New Engl J Med* 2011



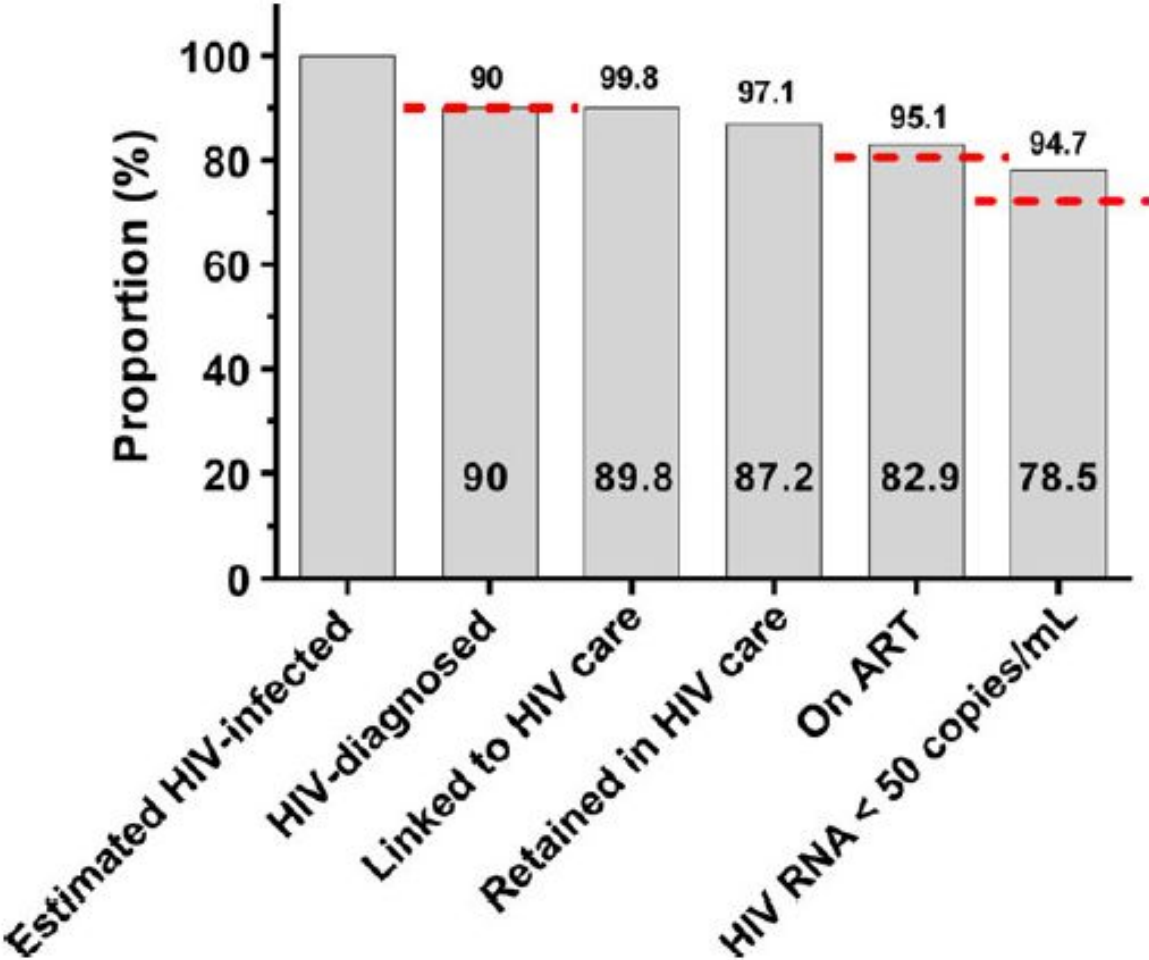
Lundgren et al. *N Engl J Med* 2015

# UNAIDS 90-90-90 target by 2020



Source: UNAIDS, July 2016.

# Sweden was the first country to reach 90-90-90



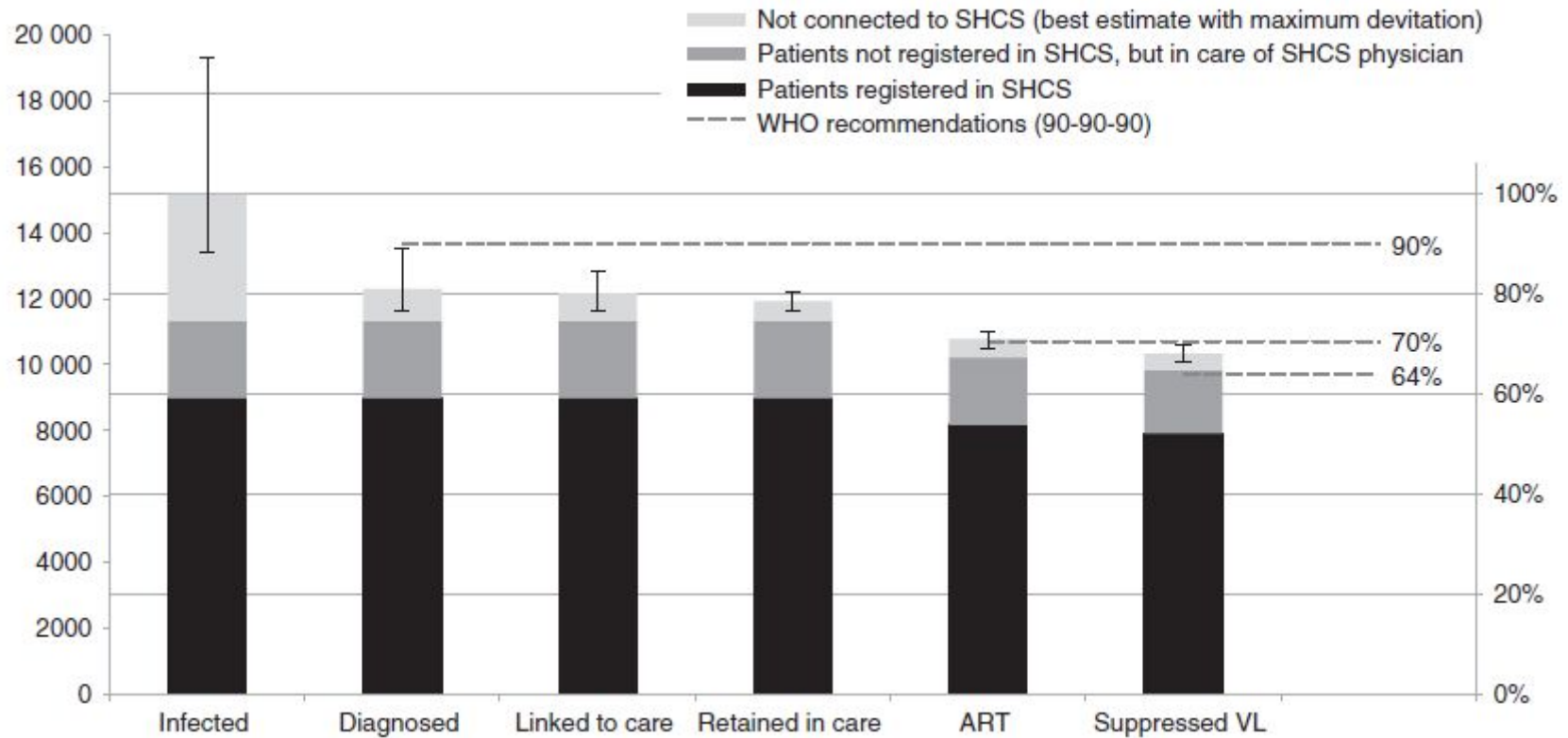
# Progress towards 90-90-90

## Global HIV treatment cascade (2015)





# HIV care cascade in Switzerland (2012)



# 90-90-90: TESTING

## 90-90-90: LINKAGE TO CARE

## 90-90-90: VIRAL SUPPRESSION

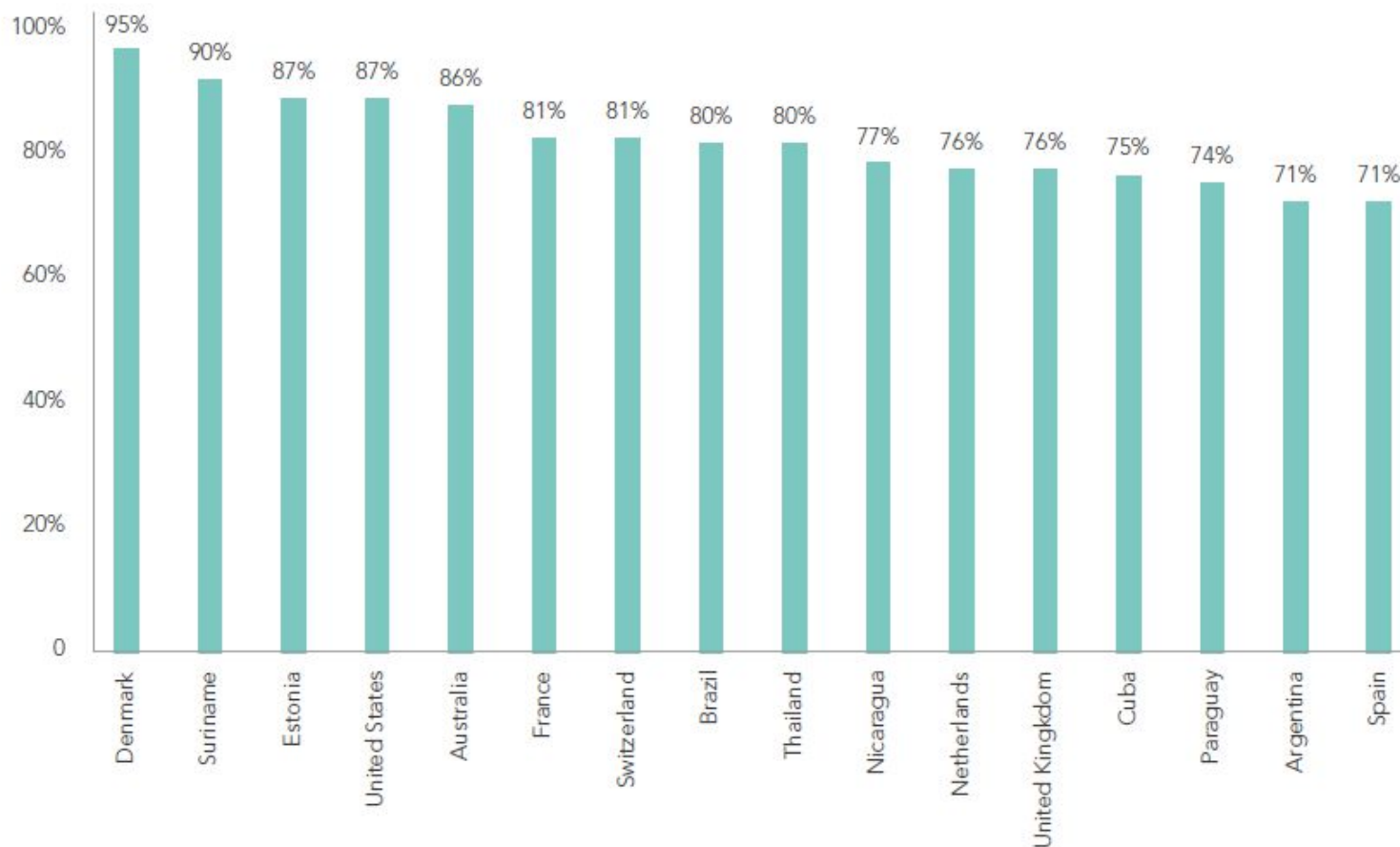
Addressing the Achilles' Heel in the HIV Care Continuum for the Success of a Test-and-Treat Strategy to Achieve an AIDS-Free Generation

Population	Targeted Health Service	Challenge	Possible Intervention/Solution
General	Scale-up testing opportunities	Increasing early-stage testing and diagnosis; suboptimal linkage, adherence, and retention in care in real life; constraints on health systems and human resources	House-to-house testing in high-prevalence settings and opportunistic testing elsewhere; mobile phones weekly 2-way text messages reminders, targeted counseling, single-tablet-regimen to improve adherence; task shifting and possibly expansion of health staff to allow provision of ART in primary healthcare facilities, which house the majority of patients in need; maintaining the drug supply chain and uninterrupted provision of ART
Men who have sex with men	Special services	Stigma; criminalization in selected countries	Advocacy for human rights; specialized clinics for testing and treatment, ART adherence support as per general population
Refugees	Not prioritized in many countries with high HIV endemicity	Not commonly supported through national healthcare systems	Advocacy for human rights; specialized clinics that include outreach services for testing and treatment

# The first 90

## Only a challenge for low-income countries?

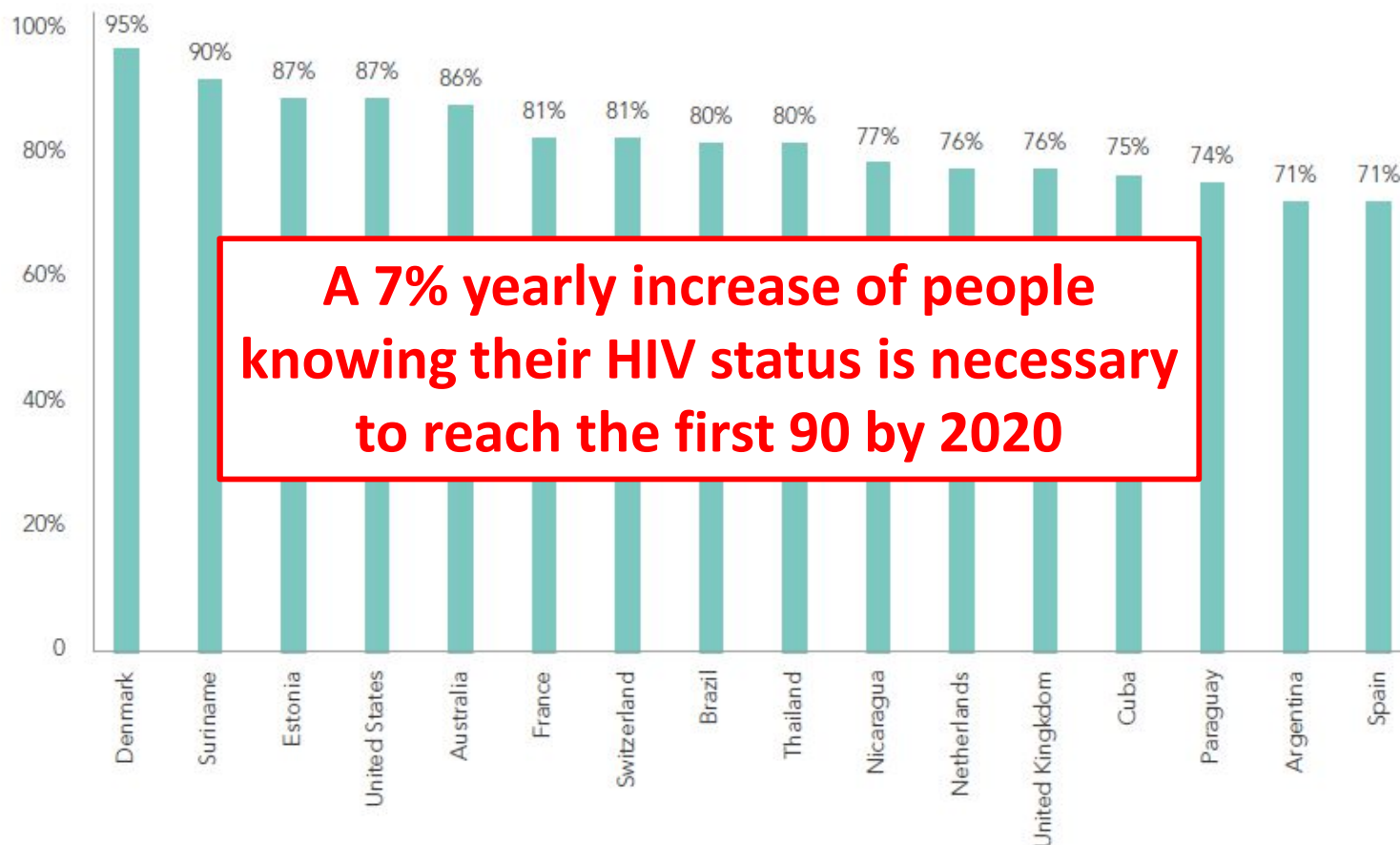
Countries reporting 70% or more knowledge of HIV status among people living with HIV, 2000–2015



# The first 90

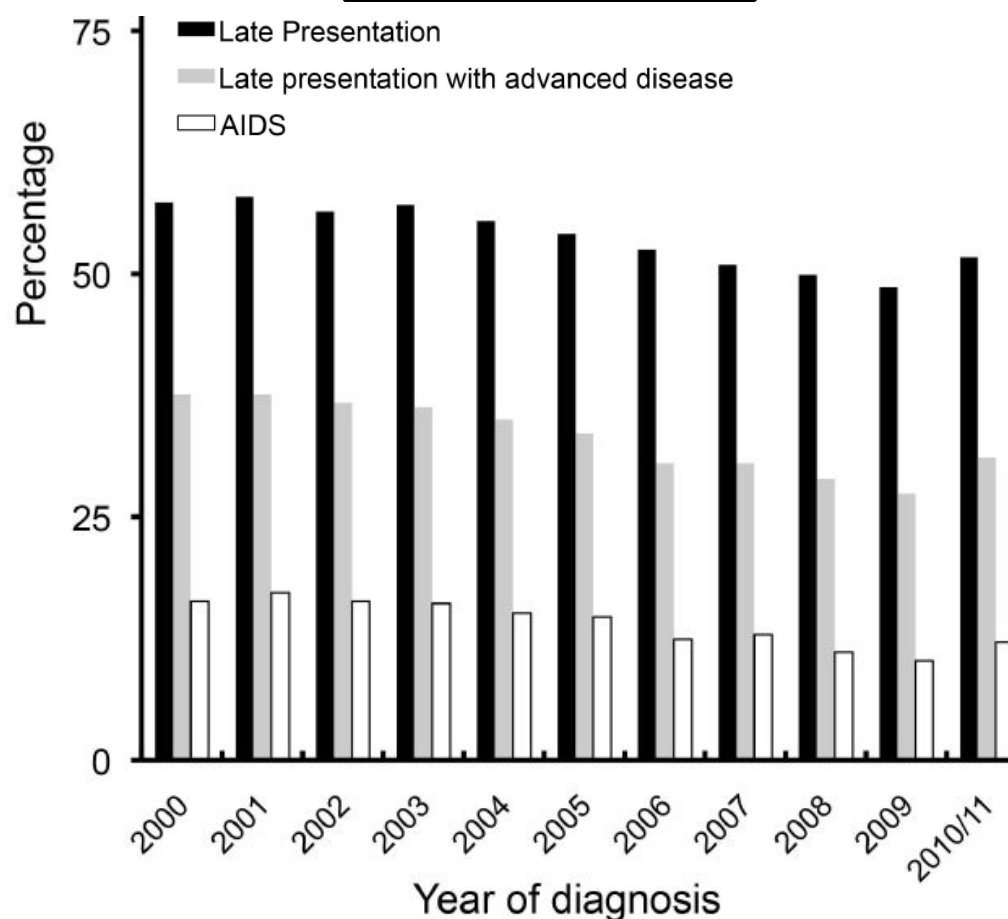
## Only a challenge for low-income countries?

Countries reporting 70% or more knowledge of HIV status among people living with HIV, 2000–2015



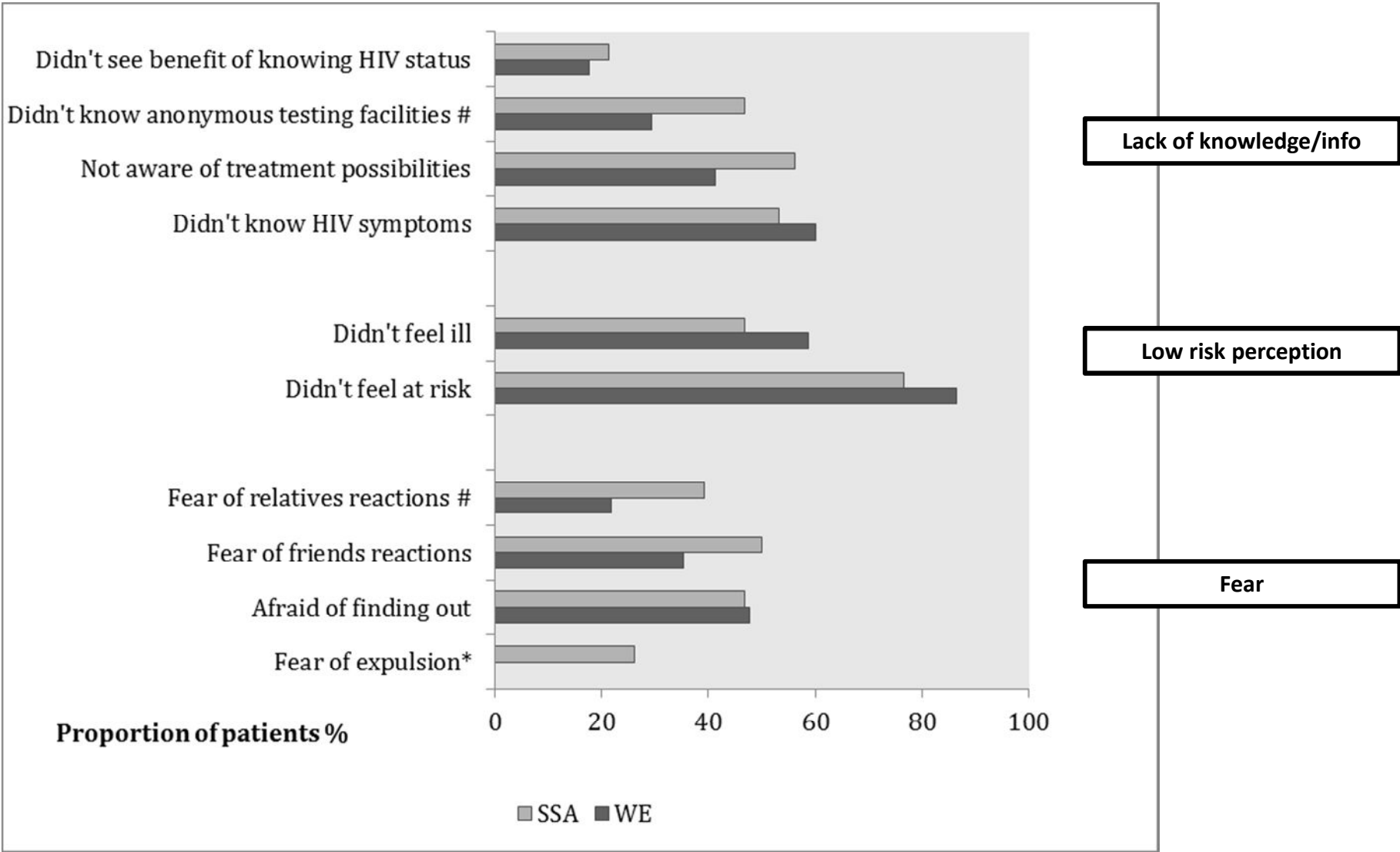
# Late HIV testing: a major barrier for reaching 90-90-90 in Western Europe

COHERE: 84,524 patients  
from 35 countries



**SHCS: 2009-2012**  
**LP: 680/1,366 (49.8%)**  
 91% were late testers  
 and presented for care  
 <3 months after  
 diagnosis

# Why do patients test late in Switzerland?



**Proportion of LP in the SHCS according to region of origin  
African: 65% vs. Western Europe: 46%**

# Tailored strategies to improve testing rates in Switzerland: provider-initiated or self-testing?

Barriers to HIV testing for migrant black Africans in Western Europe  
 I Fakoya,<sup>1</sup> R Reynolds,<sup>2</sup> G Caswell<sup>2</sup> and I Shiripinda<sup>3</sup>  
*HIV Medicine* (2008), 9 (Suppl. 2), 23-25

- Structural barriers
- Legal barriers
- Cultural barriers
- ...

Effect of availability of HIV self-testing on HIV testing frequency in gay and bisexual men at high risk of infection (FORTH): a waiting-list randomised controlled trial

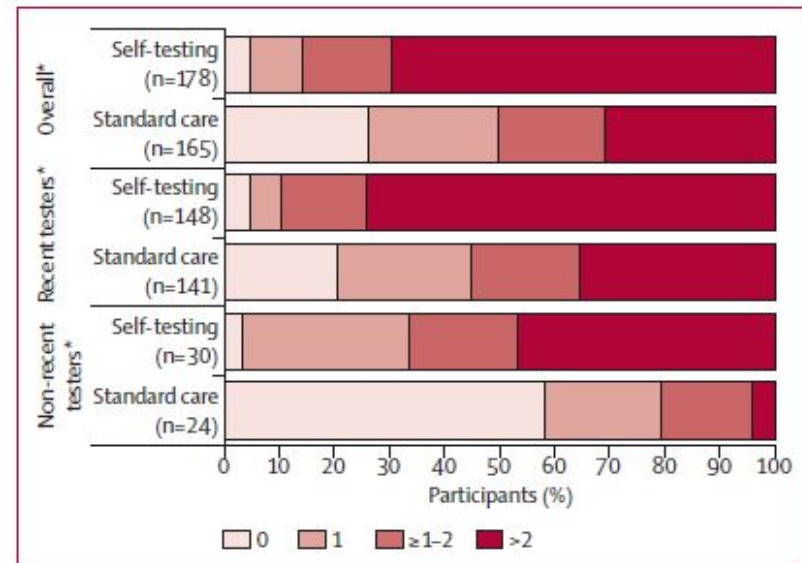


Figure 2: Number of HIV tests during follow-up

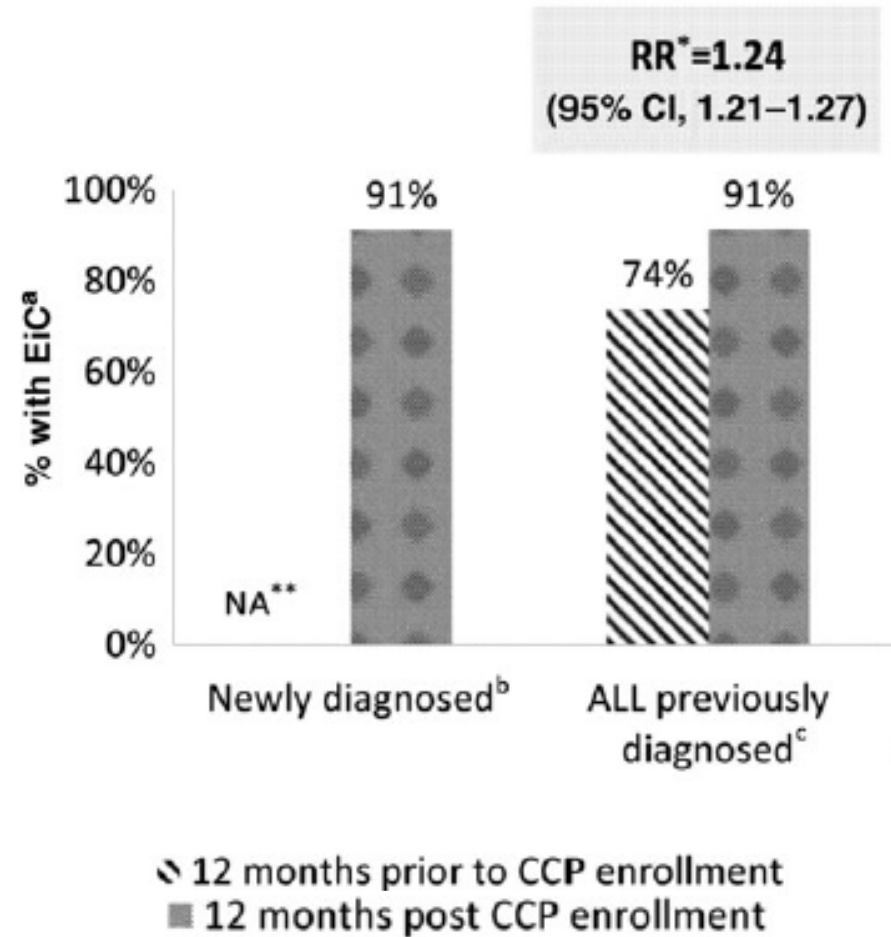
**90-90-90: TESTING**  
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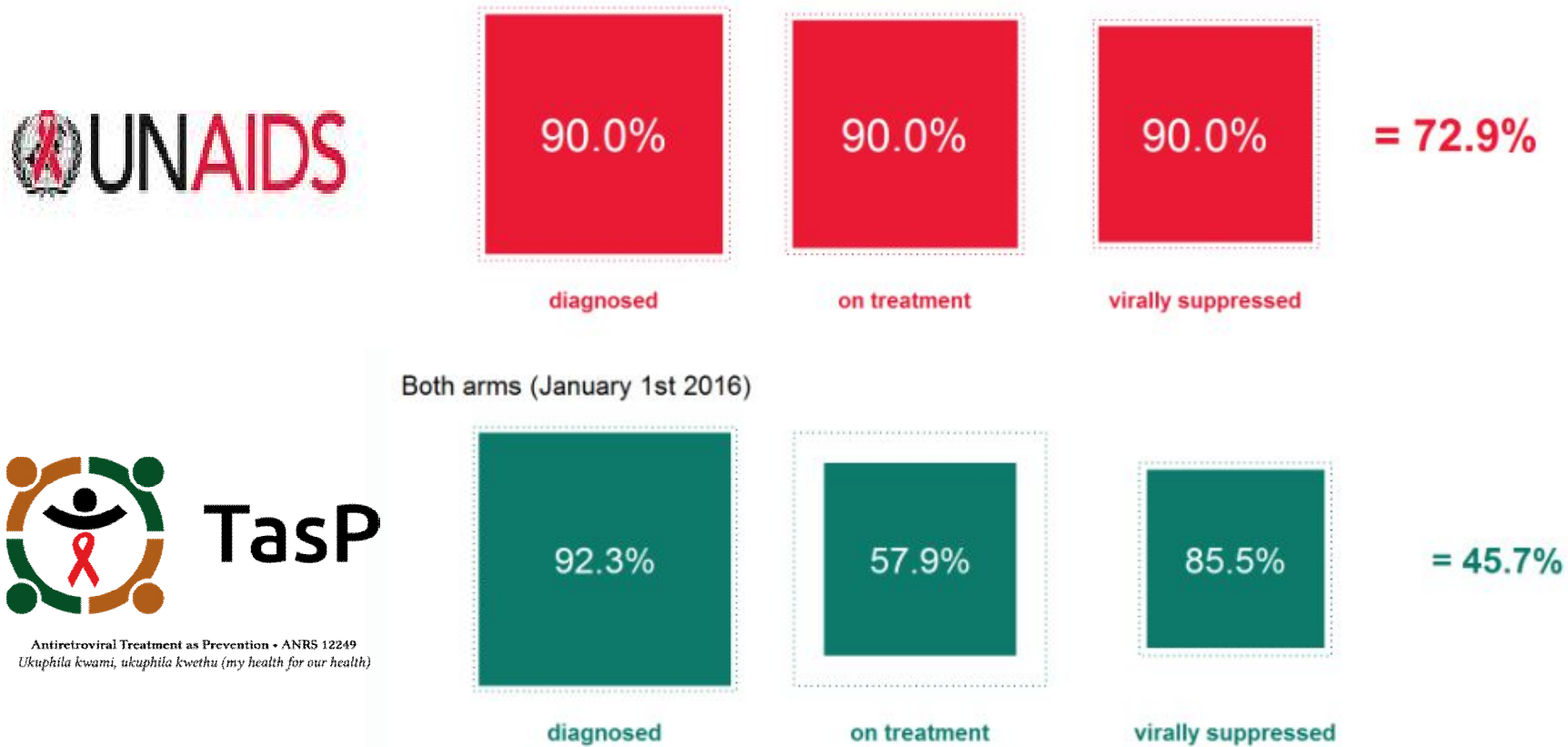


# An innovative strategy to improve linkage to care: the NYC Care Coordination Programme

New York City Achieves the UNAIDS 90-90-90 Targets for HIV-Infected Whites but Not Latinos/Hispanics and Blacks



# Linkage to care is the biggest challenge in many African settings



**90-90-90: TESTING**  
**90-90-90: LINKAGE TO CARE**  
**90-90-90: VIRAL SUPPRESSION**

Addressing the Achilles' Heel in the HIV Care Continuum for the Success of a Test-and-Treat Strategy to Achieve an AIDS-Free Generation

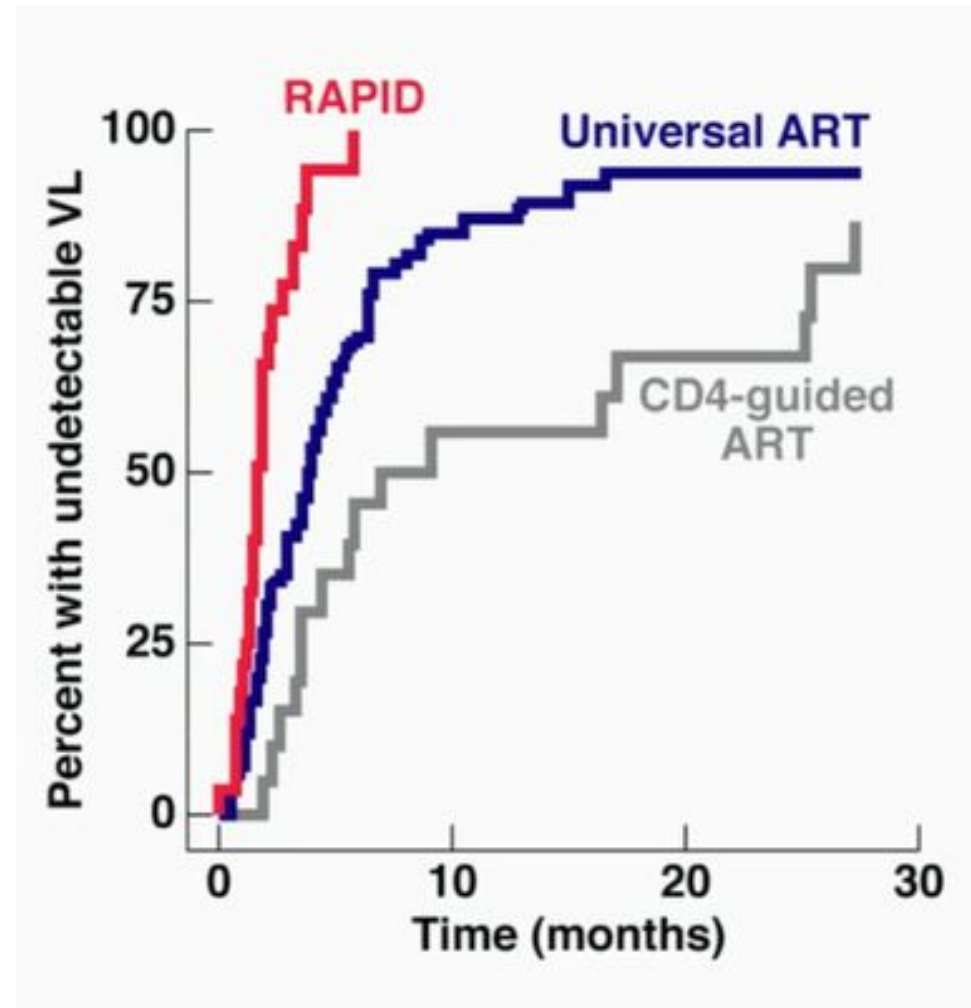
# San Francisco rapid care model (same-day initiation) feasible and shortens time to virologic suppression

## Setting

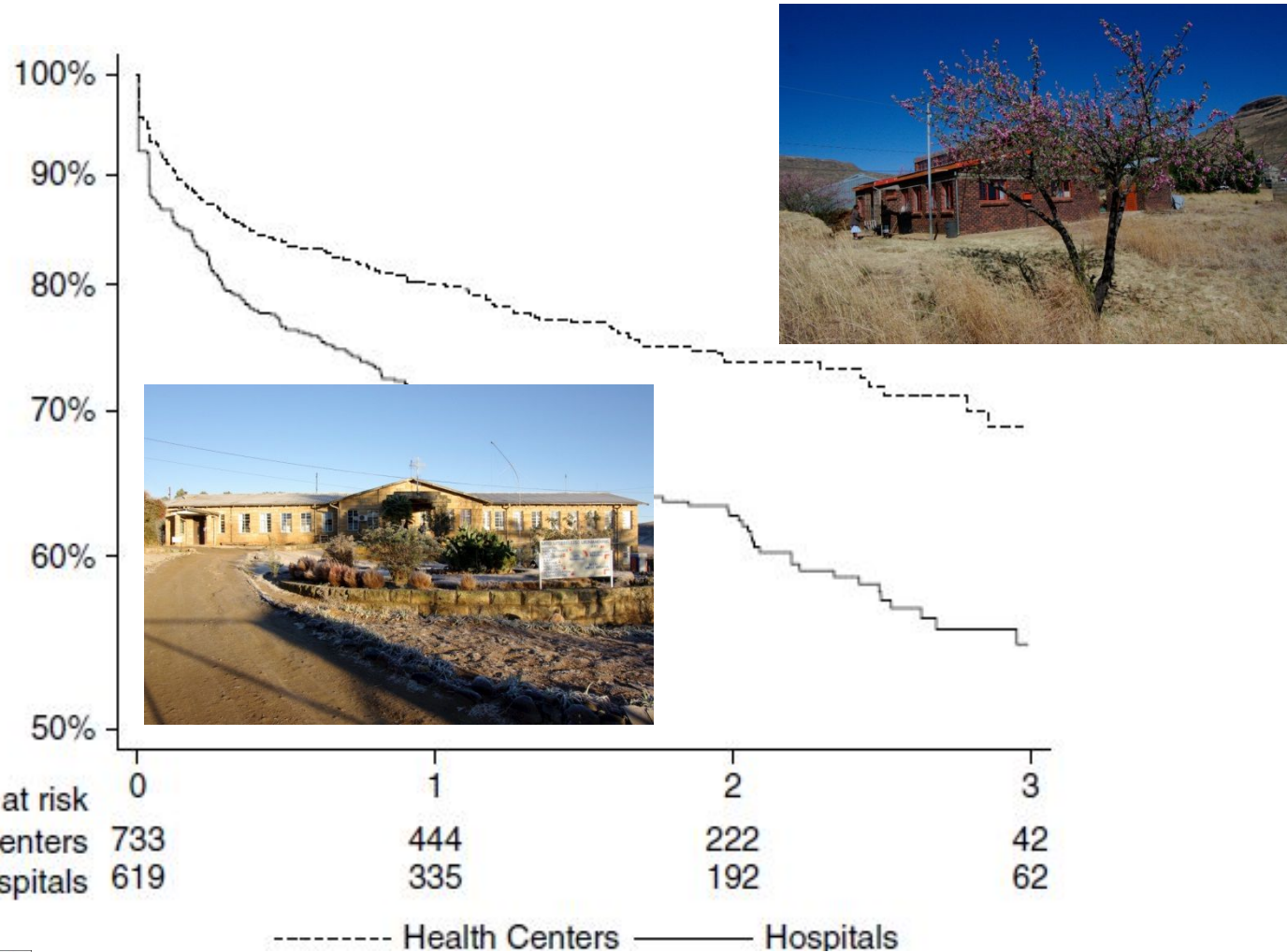
- Consecutive patients in clinic-based cohort in San Francisco included 06/2013-12/2014
- Those with infection <6 months or CD4 <200/mm<sup>3</sup> included in RAPID management protocol

## Results

- 39/86 in RAPID. 37/39 initiated within 24 hours
- LTFU: 10% in RAPID vs. 15%
- Time to virol suppression: 2 vs. 4 mo.
- RAPID strategy Increased urgency of arranging health care insurance and was time-consuming for staff!

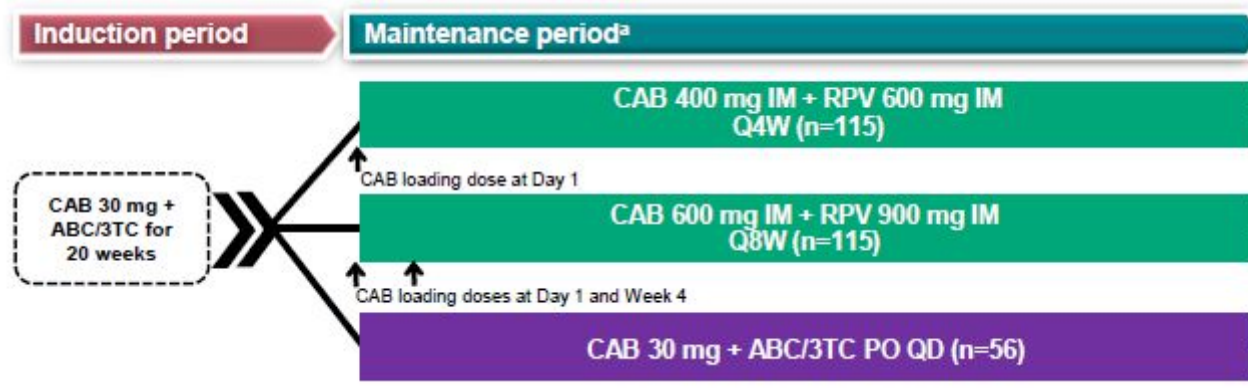


# Task shifting improves retention in care for HIV-infected men in Lesotho

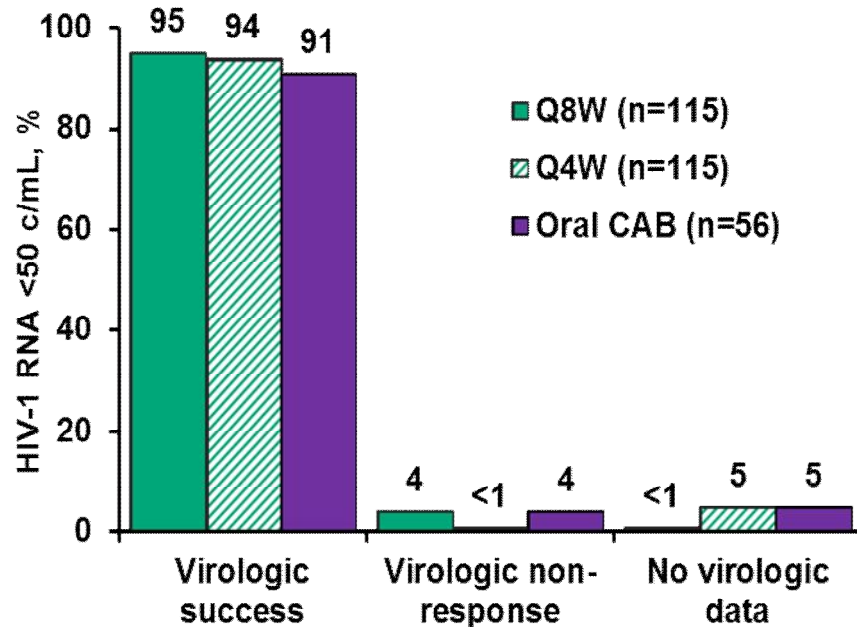


# Do we need long-acting maintenance therapy?

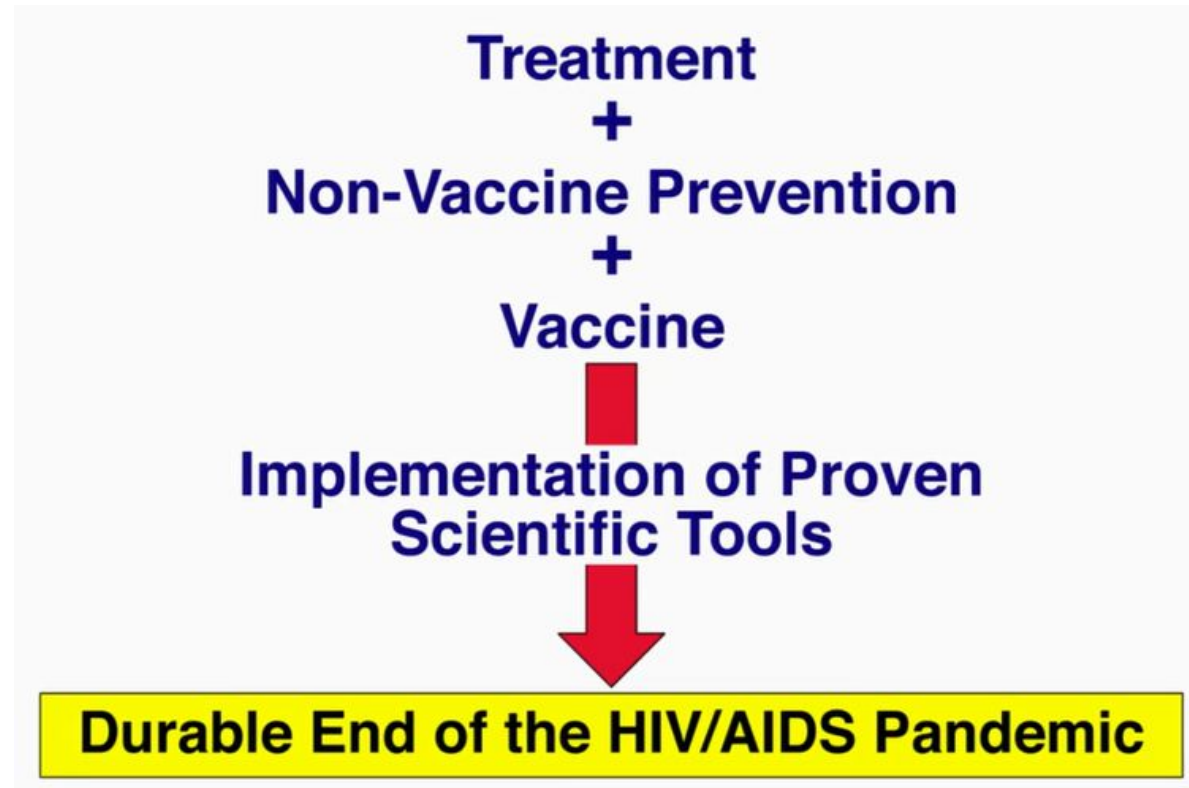
## LATTE-2



**WEEK 32: HIV-1 RNA <50 c/mL by Snapshot**



Margolis et al. *CROI* 2016



**Thank you for your attention!**