

for key populations. The world will not make progress without these components. But effective ART, elimination of pediatric infection and testing cannot be left off the list. The global AIDS response must include these elements in every document and plan.

**Combination prevention isn't one or two high-impact strategies plus business as usual.** One of the problems with the phrase “combination prevention” is that it has been used for quite a while. In some contexts, the phrase has long been used to describe a combination of behavioral, biomedical and/or structural strategies. Currently, combination prevention often seems to mean the piecemeal addition of new programs—such as expanded ART or VMMC—to existing offerings. New programs have to build on the foundations of what has worked so far. But truly effective combination prevention packages will emerge by taking the best of what's available and jettisoning what hasn't been effective.

**Combination prevention requires a holistic approach to planning, implementation and evaluation.** In many settings, testing, VMMC, ART, condom distribution and other services

all need to expand. Each service has unique logistics, staffing and delivery components—and each impacts the other. Integrated planning for implementation of high-impact prevention is still a nascent field. Since each strategy will have its own cascade of testing, uptake, demand stimulation and other steps, it will likely be important to target fewer interventions and focus on achieving high coverage. But more tools are needed to guide comprehensive plans. Only a few of the necessary tools exist today. There are models to help countries understand the impact of scaling up various strategies—and of the cost, in terms of lives saved or infections averted, of *not* expanding key services. But more decision-making tools are needed to guide comprehensive plans.

**Combination prevention is a work in progress.** There is no single or rigid definition of combination prevention. In a year's time, we'd expect to see some countries, donors and implementing partners revising their plans based on early data from combination prevention trials as well as rapid impact evaluation of scaled-up national programs. Definitions of combination prevention should be sharper—yet still evolving.

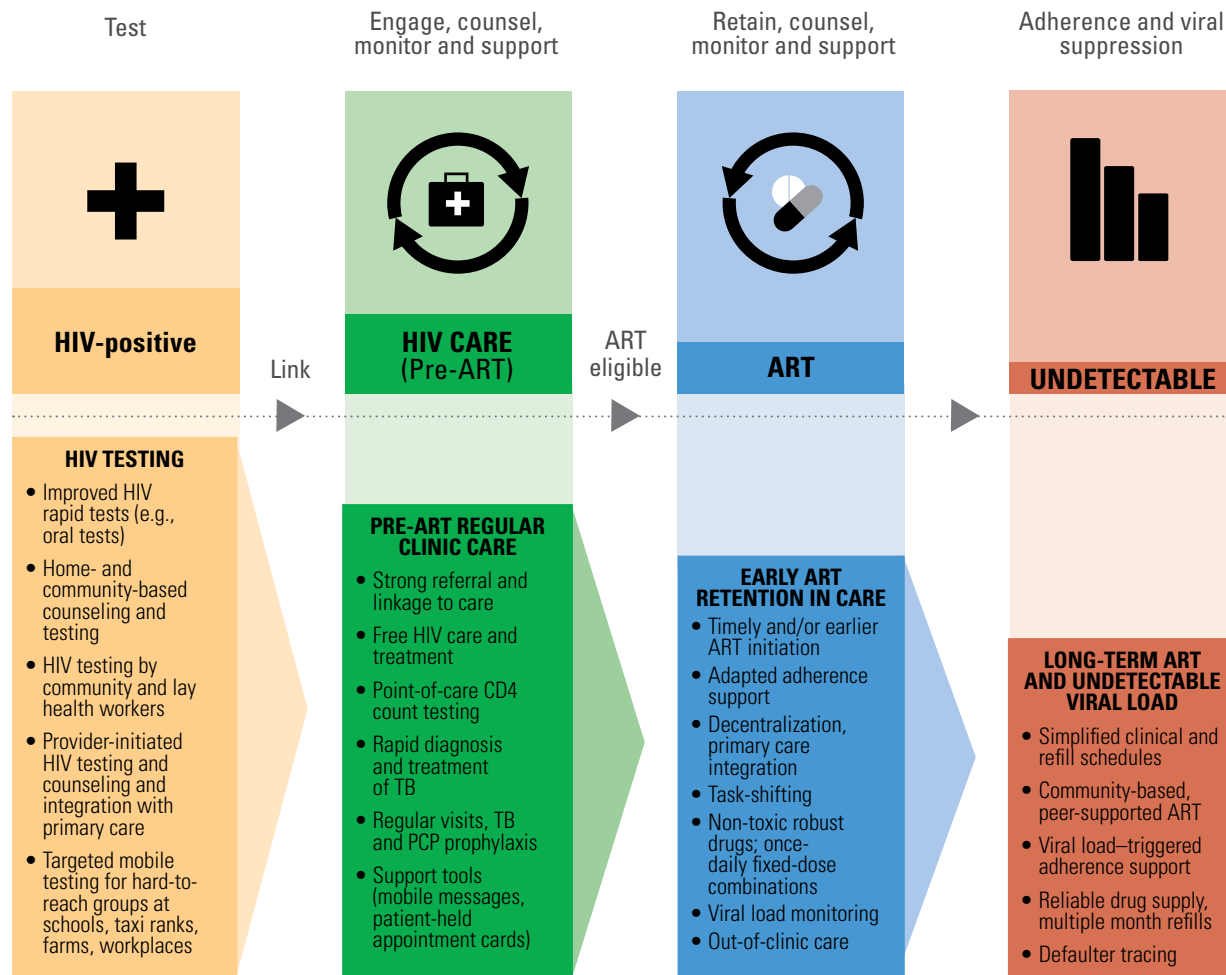
## PRIORITY

# 2.

## NARROW THE GAPS IN THE TREATMENT CASCADE

Virtually every substantive discussion of the potential impact of treatment as prevention makes reference to a graphic illustration depicting fall-off at each stage of the treatment cascade—as people move from testing HIV-positive to entering care to starting ART and so on. While the specifics—the rate of fall-off, the stages where fall-off is greatest, the stages themselves and the absolute numbers—differ across populations, the fact that there is attrition at every stage is a constant. And, as the graphic on page 14, which depicts fall-off in the US, illustrates, the numbers are sobering. The current state of affairs must change if the world is going to make effective use of treatment as prevention as a tool for ending the epidemic. Therefore, in this arena, one priority for 2013 is to articulate and fund a retention science agenda that narrows the gaps in the treatment cascade.

## Key Strategies for Narrowing Gaps in the HIV Treatment Cascade



Sources: Top: adapted from: ML. McNairy and W. El-Sadr. "The HIV care continuum: no partial credit given," *AIDS* (2012), 26: 1735-1738. Bottom: Médecins sans Frontières/Doctors without Borders and UNAIDS (2012). "Speed scale-up: strategies, tools and policies to get the best HIV treatment to more people, sooner," [www.msfnaccess.org/content/speed-scale-strategies-tools-and-policies-get-best-hiv-treatment-more-people-sooner](http://www.msfnaccess.org/content/speed-scale-strategies-tools-and-policies-get-best-hiv-treatment-more-people-sooner), Accessed November 13, 2012.

Such an agenda should segment and systematically address issues that arise at each step of the cascade since, as Wafaa el-Sadr and colleagues noted earlier this year, there is no single step that has emerged as the main issue, either in developed nations or resource-limited settings.<sup>3</sup>

There is no shortage of research on improving testing uptake, linkage to care and retention. The key strategies for resource-poor settings described above can and should be adopted without delay—with impact and best

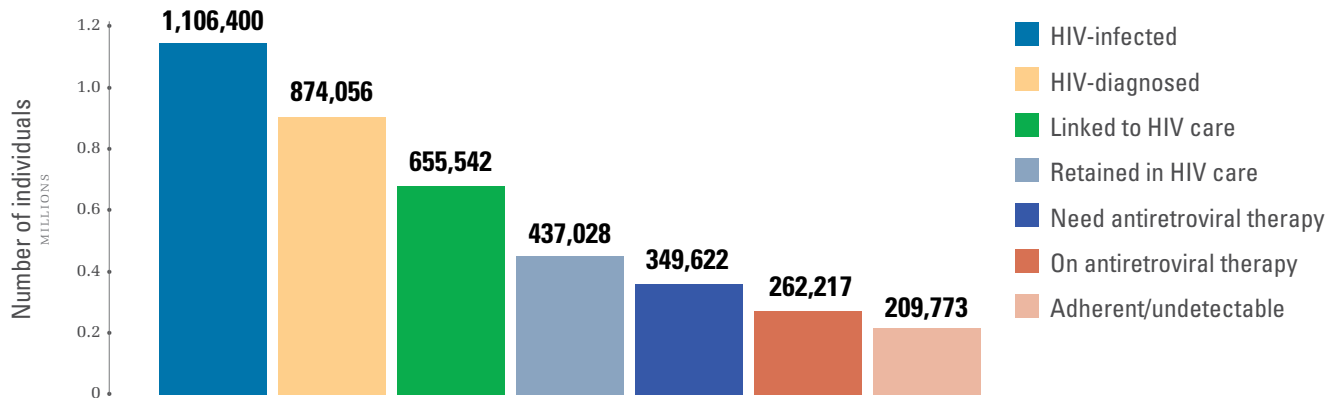
practices documented over time. But more of a coordinated, concerted effort is needed. It is critical that the array of investigations proposed—and those that are underway—be viewed with an eye to what is missing and what is redundant. The evaluation metrics for new strategies should measure direct impact—such as the proportion of patients who achieve sustained viral suppression over time.

There must be a focus on population-specific issues. As just one example, there are critical questions regarding treatment in HIV-positive

<sup>3</sup> ML McNairy and W El-Sadr. "The HIV care continuum: no partial credit given," *AIDS* (2012), 26: 1735-1738.

## Estimated Engagement in the HIV Care Cascade in the US

It is estimated that only 19 percent of HIV-positive people in the US have an undetectable viral load. Similar patterns in the care cascade exist around the world.



Source: EM Gardner et al. "The Spectrum of Engagement in HIV Care and its Relevance to Test-and-Treat Strategies for Prevention of HIV Infection," *Clin Infect Dis.* (2011) 52 (6): 793-800.

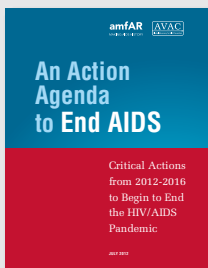
pregnant and post-partum women. In a pooled analysis of 51 studies, involving over 20,000 pregnant women from Kenya, South Africa, the United States and Zambia, only 73.5 percent of pregnant women with HIV maintained adequate adherence to ART (defined as equal to or greater than 80 percent) during and after pregnancy.<sup>4</sup> There's an urgent need to improve understanding of how to support women's adherence throughout pregnancy and after delivery especially given the ongoing push to

expansion of the prevention strategy known as Option B-plus (lifelong therapy for HIV-positive pregnant and lactating women).

Pregnant and lactating women are just one example. Youth, HIV-positive adults with high CD4 cell counts, marginalized populations and many other groups will have key issues that need to be addressed through smart implementation science.

Modelers, national health officials, implementers and funders of research should map and cost out the retention science agenda(s) for various contexts and communities. Ideally, this work would lay out the knowledge that is currently available, the data that are anticipated from current research, and the areas that have yet to be funded. If this is done in the next 12 months it will bring significant clarity to ART's role in combination prevention at the precise moment that countries begin to implement the forthcoming WHO comprehensive guidance on ARVs for treatment and prevention (see p. 29 for more on this issue).

## ADVOCACY RESOURCES



### An Action Agenda to End AIDS

Published by amfAR and AVAC in July 2012, this document identifies milestones and actions for progress between 2012 and 2015. To download a copy and subscribe to receive quarterly updates visit [endingaids.org](http://endingaids.org)

[www.avac.org](http://www.avac.org)

<sup>4</sup> JB Nachega et al. "Adherence to antiretroviral therapy during and after pregnancy in low-income, middle-income, and high-income countries: A systematic review and meta-analysis." *AIDS* (2012), 26:16: 2039-2052.