

Piecing Together the Big Picture: A letter from the Executive Director

How do we solve the HIV prevention puzzle?

No one has the answer yet. And we're still missing many of the necessary pieces. This much is clear from rates of new infections and persistently low coverage rates of proven prevention services and tools.

One portion of the puzzle can be solved in the near term by fitting together pieces we already have. These include protection of human rights; provision of safe, respectful, affordable and integrated prevention, treatment and care; sustained investments in health care infrastructure; and programs that addresses structural as well as individual risk factors. That these pieces remain jumbled is an ongoing challenge to us all.

Doing better with what we've got will fill in one portion of the puzzle. But there's also a continuing, urgent need for new pieces—new strategies—that can provide additional forms of risk reduction for people throughout their lives. The ultimate goal of biomedical prevention research on AIDS vaccines, microbicides, male circumcision, HSV-2 treatment and pre-exposure prophylaxis (PrEP), is to add some of these pieces so that someday we can complete the “big picture” of effective prevention to end the AIDS epidemic.

We're still a long way from that lofty goal. We're even a long way from having a single new piece of the prevention puzzle that could fit smoothly alongside any of

today's proven interventions. This will hold true even if one of the current HIV prevention efficacy trials shows benefit (see page 4 for a list of 2009 trial milestones). A single positive result will trigger more research and the hard work of implementation, resource mobilization, and expanded community engagement.

In this year's *AVAC Report*, we highlight some of the ways that progress in biomedical prevention research is being made:

- Data from the Step vaccine trial are raising questions that might not have been identified otherwise (see page 32).
- Results are imminent from the Thai prime-boost vaccine trial, a study of HSV-2 treatment in HIV-positive people to reduce HIV transmission risk, an additional microbicide trial of PRO 2000 gel, and PrEP studies (see page 57).
- Research teams working with communities of gay men and other men who have sex with men in the developing world have created strong partnerships that have yielded data as well as new advocacy platforms (see page 64).

We also highlight some of the areas where there are challenges:

- The Global HIV Vaccine Enterprise still has to prove itself capable of convening the catalytic conversations among scientists, funders and donors, which many hoped it would when it was founded five years ago (see page 24).





- Enthusiasm about PrEP, and about using early initiation of ARVs in people with HIV to reduce their infectiousness, has catapulted the notion of “ARV-based prevention” into the spotlight. But the current conversation is unrealistic and pays too little attention to the major hurdles that would come with a new “ARV generation” (see page 46).
- The global epidemic in gay men and other men who have sex with men is soaring, with little action in many countries with homophobic policies, leaders, and/or cultures (see page 64).

If these lists of progress and challenges read like a jumble—with some themes repeated in both—then we’ve done our job. The biomedical prevention field has many of the pieces it needs to make real progress in both research and implementation in the coming years. But many of these pieces have yet to be assembled.

For example, as discussed in articles in this *Report*, we have seen only the very beginnings of conversations about how AIDS vaccine research and PrEP might fit together, and there’s a need for a thoughtful look at how the rich array of AIDS vaccine research on control of HIV relates to research on prevention of infection.

“A long view is needed for the long haul of ending the epidemic.”

Of course, figuring out the HIV prevention puzzle happens in the broader, global context of our times. And this year’s *Report* comes at quite a time, indeed.

The great waves of consequences from the all-encompassing economic upheaval are deep, far reaching, and far from over: job losses, funding and revenue shortfalls, anxiety in non-profit and for-profit sectors alike, massive losses from bad investments and lack of growth, and ever-deepening ripple effects that underscore just how much we are all tossed around in the same small boat.

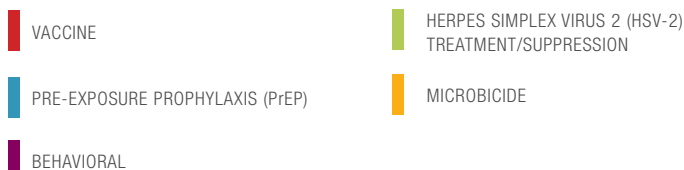
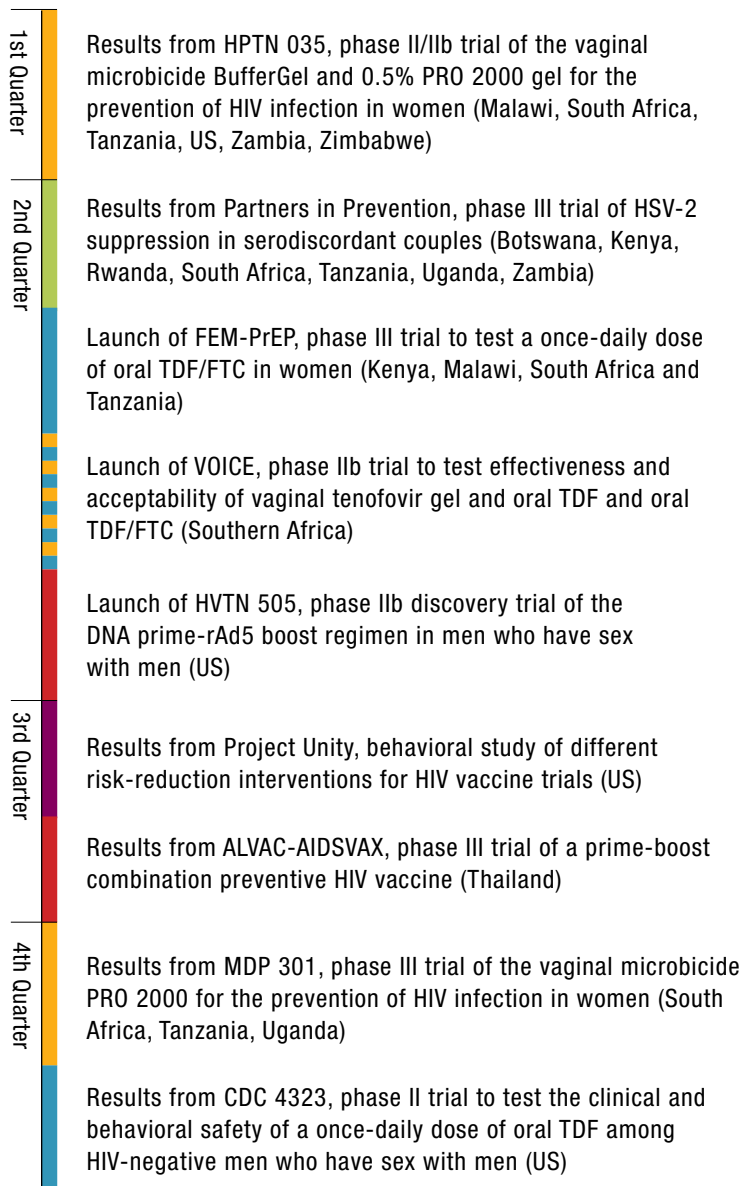
The current economic downturn is adding new stress, strain, and risk. But people infected with, affected by or working in HIV/AIDS have, for more than two decades, inhabited a world bound together by a single crisis with consequences that continue to defy the imagination.

The belt-tightening of the current financial crisis demands that people invest selectively. In the next few years, it’s





Figure 1 2009 Trial Milestones to Watch



likely that every dollar spent on the AIDS response will be subject to even greater scrutiny as budgets tighten and funders reexamine their priorities.

Against this backdrop of such urgent need and scarce resources, can AVAC realistically make the case for continued investment in HIV prevention research? To borrow one of the phrases that defined 2008: *Yes we can*. Moreover, yes we must.

A long view is needed for the long haul of ending the epidemic. Continued investment in proven prevention and prevention research is essential to safeguarding the inroads that have been made in delivering HIV treatment and care—including ARVs—to people living with HIV. The world is still far from treating every HIV-positive person who needs treatment, but progress continues to be made each day. To maintain the ground gained and continue pushing towards the goal of universal access, the rate of new infections must be slowed down. Effective prevention is the key. That's an investment argument we'd make in any year—in good economic times or bad. But we make the case this year with particular urgency based on the current context and opportunities elaborated in this year's *Report*.

To structure this year's *Report*, we took inspiration from a quotation in the 2006-2008 review of the Bill & Melinda Gates Foundation-funded Collaboration for AIDS Vaccine Discovery (www.cavd.org), which states that the ultimate goal “is to develop a vaccine that prevents HIV infection or disease—anything less than that can be characterized as progress, but not success.”

In the first section, “Puzzling Out Progress,” we report on the AIDS vaccine field, where there’s an energized focus on discovery, innovation, and basic science. In the second section, “Puzzling Out Success,” we turn to the implications of PrEP and other strategies in efficacy trials today. Throughout, we argue that success will depend on combination approaches: on research plus implementation; on vaccines plus PrEP, should either show benefit; and on communities plus researchers working towards common goals.

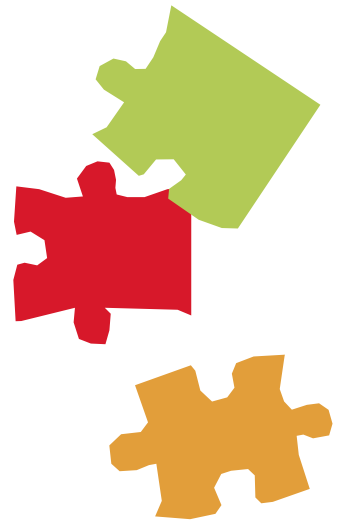
There isn’t any money—or time—to waste. Funding decisions must be wise: non-duplicative to the extent possible, evidence-based yet bold, evaluable, expansive, and innovative. There is essential work happening at lab benches

and clinic rooms, in legislative halls and town halls, at international agencies and community-based organizations.

Subtract any piece and the picture is incomplete; the HIV prevention puzzle is as it always has been: unsolved. But we have many pieces now—and more to come very soon—so we must be sure we know how to arrange them into a coherent and meaningful picture.



Mitchell Warren
AVAC Executive Director



In Memoriam

This year’s *AVAC Report* is dedicated to Martin Delaney (1945-2009) and Lynde Frances (1947-2009), two indefatigable, irreplaceable AIDS activists who passed away in the past year.

Martin Delaney’s insightful, provocative action for accelerated research on and access to AIDS treatments was based on the principle that people living with HIV and their allies can and must understand the science of AIDS treatment and prevention and be part of the decision-making processes that guide research and access. Groups like Project Inform, which Delaney helped to found in 1985, and AVAC are guided by this spirit to this day.

Lynde Francis was one of the first HIV-positive people to publically disclose her status in Zimbabwe, and the founder of The Centre for AIDS services, which has provided care, treatment and support to HIV-positive Zimbabweans for more than fifteen years. Lynde shaped lives, policies and activist agendas with deep wisdom, political savvy and articulate passion. Her leadership for women living with HIV, their families and partners had global influence and will be sorely missed by us all.

