“The story is the science.” That’s how Larry Corey, veteran scientist and head of the HVTN, described it when AVAC spoke with him about where the vaccine field is today. (He said a lot more, too, so be sure to check out the Px Pulse podcast at www.avac.org/px-pulse in late May). There’s enormous truth in this, to be sure. In the past year, three major efficacy trials have launched to test vaccine and antibody candidates that represent years of research, innovation and insight. Today’s vaccine vials and antibody infusion drip bags hold more effort, experimentation, careful analysis and scientific hypotheses than any products the field has ever evaluated. One story is the science—and the center spread graphics highlight the momentum in the field, and the scientific advances and the magnitude of investments, both financial and human.

But AVAC and our many partners, including those at the HVTN, know that there are other stories that are just as important. We’re thinking of activists’ stories, advocates’ stories, women’s stories; the stories of transgender women and men, and the stories of adolescents.

There are also stories that have yet to be written. Many of these involve bridging human rights and biomedical strategies—something that’s easy to say but still quite hard to do. Many countries are expanding index testing (finding and testing the sexual and needle-sharing partners and children of people living with HIV) and self-testing (particularly for men and key populations) as part of an urgent effort to find and diagnose 95 percent of people living with HIV. These are powerful strategies. They also need to be implemented in the context of programs attentive to issues of stigma, confidentiality, community acceptance and partnership. This work is new; the story is still unfolding.

For this HIV Vaccine Awareness Day, we highlight some of the stories that we’ve gathered alongside our advocate partners over the past year. We’ll be adding new chapters in the year to come.

The Story Is...Primary prevention can’t be overlooked or oversimplified

In the context of HIV, primary prevention is the term public health experts use for strategies that focus on HIV-negative people. Today’s strategies include: male and female condoms and lube; daily oral PrEP; harm reduction programs for people who inject drugs; voluntary medical male circumcision; and structural interventions. These structural interventions reduce stigma and violence against people at high risk of HIV and promote their social and economic capital. People at high risk of HIV include adolescent girls and young women, men who have sex with men, transgender individuals and other key populations.

This definition is probably familiar. Why are we writing it again? Because this existing package of strategies—which has the potential to dramatically reduce rates of new HIV diagnoses—isn’t being taken to scale everywhere it should be. “Scale” means reaching high levels of coverage of all these tools in all of the populations that need them.

We have to keep on naming the things that need to be done, and at the same time we have to keep on reminding our allies that these tools are not enough. Failure to incorporate research and development, funding, political commitment and timelines into the global HIV response is a failure to plan for the end of epidemic levels of HIV. It’s that simple.

The Global Prevention Coalition (GPC) and its “Prevention Roadmap” initiative at country level has, since late 2017, sought to raise the profile of primary prevention and, in doing so, it’s highlighting the...
The story is the science. The graphic below shows a snapshot of the status of vaccine efficacy trials. May 2018 marks continued progress in an unprecedented level of vaccine development activity.

**VACCINE EFFICACY TRIALS PIPELINE**

- **RV144** (31% efficacy, 2003-2009)
- **ALVAC/HIVVAX** (Clade B and E, 2009)
- **Pox-Protein** (Pr. E. Coli, South Africa)
- **Ad26** (Janssen)
- **PrePvacc** (Imperial College, MRC-ure, iAVI)

**Research Track**
- Southern Africa and US
- Designed to identify components of an effective vaccine strategy.

**Development Track**
- South Africa
- Designed to lead to a product submitted for regulatory approval and eventual public health introduction.

**VACCINE AND ANTIBODY TRIAL PARTICIPANT RECRUITMENT, 2018**

- **TOP AIDS VACCINE FUNDERS, 2016 (US Million)**
  - NIH: 605M
  - BMGF: 114M
  - MHRP: 33M
  - USAID: 29M
  - EC: 12M
  - Ragon Institute: 10M
  - Swedish Res. Council: 6M
  - ANRS: 5.3M
  - UK MRC: 5M
  - South Africa DST/MAMRC: 4.9M
  - Other: 70.8M

**TOTAL VACCINE SPENDING BY AREA, 2016**
- **Advocacy & Policy**: 1%
- **Cohort & site development**: 1.5%
- **Clinical**: 36%
- **Preclinical**: 45%
- **Basic**: 17%

**KEY:**
- IV: Intravenous
- SC: Subcutaneous

The story is support and stakeholders. The top graphics depict who funds HIV vaccine research and development and how the money is spent. The bottom graphic shows numbers of vaccine trial participants throughout the world by country and by target population.
challenges that exist at the country level. Budgets are tight. There is an urgent imperative to scale up testing to find people living with HIV, link them to ART and support them in achieving virologic suppression. Efforts to reach these targets in each country are taking up the bulk of national funds dedicated to HIV and affecting messaging and programmatic focus. PEPFAR is urging partners to evaluate their testing programs largely in terms of the “yield” of HIV-positive individuals identified. Programs that reach out to HIV-negative individuals at high risk of potential infection and provide them with prevention do exist, but they are supported inconsistently. They are not prioritized and they should be.

The GPC and its country-level efforts are shining a light on these gaps. But that won’t be enough. Resources, political will and strong demands from civil society are essential.

And that still won’t be enough.

There is nothing about HIV vaccines or other prevention research in the Global Prevention Coalition framework. This is a grievous omission. It sends the wrong message to countries and makes advocacy harder. But we are up to the challenge.

In the coming year, prevention advocates will call on the keepers of prevention roadmaps at the country and global levels, urging them to add research milestones and commitments as part of a comprehensive push to make primary prevention work, for real and for the long-term.

The Story Is…Stakeholder engagement

Stakeholder engagement in research has provided crucial insights to inform trial design and build trust between researchers and trial-site communities. Commitment to a process that brings in stakeholders early and often, and affords them an opportunity for rich collaboration with researchers is instrumental to a successful research agenda.

These are also familiar words. HIV vaccine research groups have a long and solid history of commitment to their communities. The International AIDS Vaccine Initiative (IAVI), from its early years, invested in a range of programs in the countries where it conducted research. This work continues in Kenya, India, Uganda, Zambia and other places. Likewise, the HVTN thought extensively about community engagement—among people of color in the US and overseas—and was one of the first groups to write Good Participatory Practice (GPP) Guidelines into procedural documents. Most recently, the pharmaceutical company Janssen, a partner in the ongoing HPX2008/HVTN 705 trial, is actively developing a company-wide GPP program.

Community Advisory Boards (CABs) are one of the most familiar forms of stakeholder engagement. They have many functions but often involve leaders and community representatives who serve as partners to trial sites and may hold the trial accountable in turn. CAB members and the research staff responsible for implementing CAB work deserve huge credit for successful trial launch, conduct and closure. With multiple efficacy trials underway within the same communities and cohorts engaged in treatment and prevention scale-up, expanded stakeholder engagement is more important than ever.

Working together, long-time vaccine advocates and researchers need to expand the conversation. It may mean they look for people who aren’t quite satisfied with the status quo, illustrated by the age-old adage that “the world needs an HIV vaccine”. It may mean engaging the PrEP advocate who has never been to a vaccine trial site, or the woman advocating for HIV prevention for her community who may have questions about how vaccine trials are conducted. As prevention research proceeds in the context of more biomedical options, all new trials must search out the skeptics and engage with concerns, and some of this is already happening.

This type of engagement can get hard and messy. And by definition, it almost has to. If the vaccine field plans to declare success from these trials, it has to be because of a push and pull where external stakeholders have had input and trials have been responsive to community interests.

AVAC will continue to watch this story unfold. If nothing else, we look forward to telling a success story of trials that set a new standard for responsive models of stakeholder engagement and lay a foundation for what’s sure to be a future with more trials and more complexities and, hopefully, fewer new infections.