

No Shortcuts

RECOMMENDATION

1

Make this your message: ***Systemic prevention (long-acting injectable antiretrovirals or a vaccine) is a prevention priority—but not a standalone solution.***

Stop saying: *Long-acting injectable options are what's needed because people can't or won't use other options.*

Funders and decision-makers involved in prevention research need to develop products that people will want and use. This means asking people—via well-designed, human-centered research—and acting on the answers. Who's accountable? Many groups—including the US NIH's Division of AIDS, which is reevaluating its trials network structure and scientific priorities.

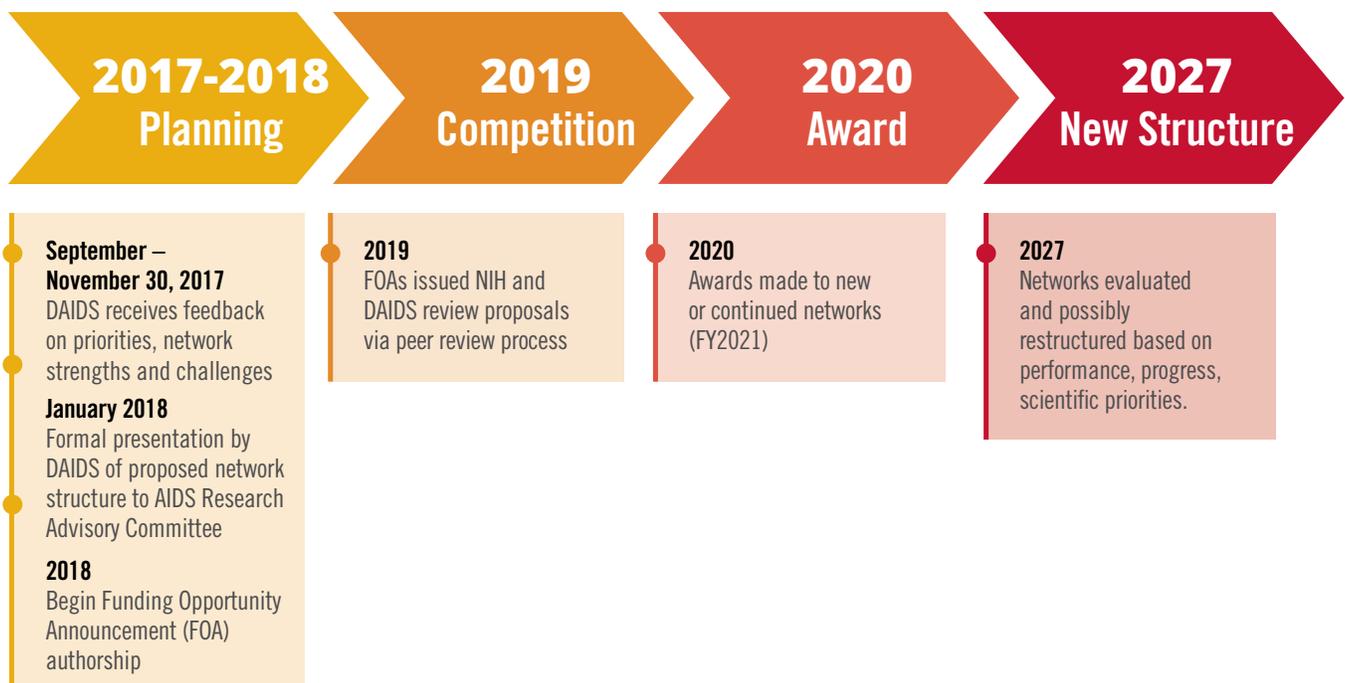
On November 30, 2017 the US National Institutes of Health (NIH)'s Division of AIDS (DAIDS) closed the public comment period for input into the future of its clinical trial networks. The US government funds about three-quarters of the global budget for HIV prevention research. The agencies that receive these funds (see page 15) do not break down budgets by research entity, but with a budget of US\$1.4 billion in FY18, the US National Institute of Allergy and Infectious Diseases receives about 46 percent of the total NIH investment in HIV research. Money from this budget line flows to the DAIDS-supported clinical trials networks, including the HIV Vaccine Trials Network, the Microbicide Trials Network and the HIV Prevention Trials Networks. With so much heft in its own budget and as part of the US research investment, DAIDS and its decisions matter for the overall direction of the field. In the pages that follow, we dive deep into what DAIDS' networks have done to date and what we need and expect them to do in the future. But the recommendations we foreground applies to the whole research enterprise: governmental, philanthropic and private funders alike. Chiefly: now is not the time to settle for a single approach to HIV prevention. A robust research agenda must align with the needs and preferences of the people most at risk of HIV. This means long-acting reversible methods, vaccines and user-controlled methods, as well. As the contraceptive field has taught us, choice isn't a luxury, it's a necessity for programmatic health. This is a message for the whole range of stakeholders engaged in HIV prevention research.

So what does this mean for DAIDS and its networks? The current structure (see pages 10-11) will be in place through 2019, and the new network structure will be in place from 2020 to 2027. Decisions today must intentionally and explicitly consider future needs. Much of the debate today is about what those needs actually are, how we know and who decides. AVAC and our civil society allies know that people most at risk of and living with HIV must lead these discussions, and so we begin this section with the core premises developed by a civil society collaborative focused on DAIDS-related advocacy.

Civil society's core premises for prevention³

- ▶ Cisgender and transgender men and women, along with children and adolescents, deserve safe and effective HIV prevention options that provide easy, efficient protection, enabling all to lead vital, healthy lives.
- ▶ Those same individuals have numerous and diverse sexual health needs, beyond protection from HIV, including protection from other sexually transmitted infections and—for many women—managing fertility decisions.
- ▶ Individuals have varying needs across their lifespans; effective HIV prevention packages will include an array of options to meet those needs.
- ▶ Desire and sexual satisfaction are important considerations in the development of any new technology intended for prevention of HIV and other sexually transmitted infections, since these factors inevitably affect product adoption and continued use.
- ▶ Those most in need of new HIV prevention strategies should be substantively involved in research prioritization and conduct, both via stakeholder engagement and in senior scientific leadership that is representative of the most affected populations.

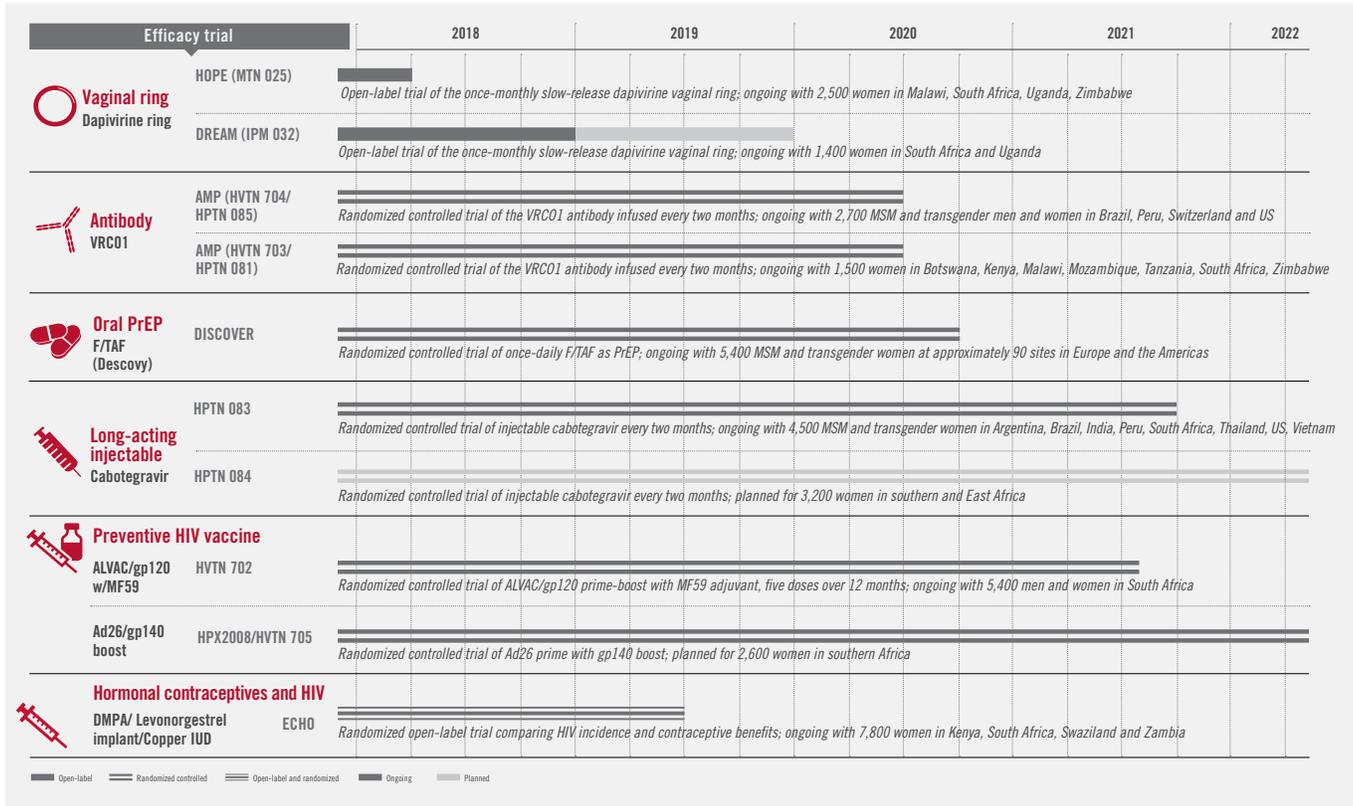
Figure 4 **Timeline for DAIDS HIV Trials Network Recompetition**



Adapted from Dr. Carl Dieffenbach, Director, Division of AIDS.

³ Developed by an *ad hoc* group of advocates based primarily in the US, in coalition with non-US partners, that mobilized in early 2017 to develop core premises on which to build a DAIDS-focused advocacy agenda.

Figure 5 The Years Ahead in Biomedical HIV Prevention Research



Using these core premises as a foundation, we recommend the following:

Set up structures to address cross-cutting and user-focused questions

As shown on pages 10-11, the DAIDS-funded networks have merged and split into different focal areas over the years. The current proposal would merge the networks focused on prevention (HPTN) and microbicides (MTN), and leave others intact. Whatever the final structure, the networks must be better coordinated and more consistent than they have been in the past. Specifically, the new structure must explicitly incorporate mechanisms including dedicated budget lines, cross-cutting research agendas and cross-network coordinating mechanisms that focus on:

- Bonafide behavioral and social science research (BSSR). This starts with making clear distinctions between the methodologies and purposes of these related but distinct disciplines, includes ensuring consistency in approaches to prioritizing



Recommendations for Network Structure and Cross-Cutting Issues

- ▶ A comprehensive, cross-network behavioral and social science research agenda that supports consistency in approaches and focus across networks. It should be reviewed on an annual basis and updated as needed.
- ▶ Establishment of either a network core or cross-cutting mechanism that guides thinking and investment related to product introduction from the earliest stages of product development.
- ▶ Institutionalized and consistent research engagement across networks via a funded community and stakeholder engagement division within the core of each network and/or via a cross-network mechanism. This will ensure consistent implementation of the Good Participatory Practice (GPP) Guidelines for stakeholder engagement at site level and, importantly, beyond trial communities.

Figure 6 **NIH-Funded HIV Trial Networks: A family tree**

1991
-
1998

The beginning. The Pediatric AIDS Clinical Trials Group (PACTG) and the AIDS Clinical Trial Group (ACTG) were the primary US-funded networks funding research on treatments to block viral replication and treat opportunistic infections in adults and children living with HIV. ACTG 016 was the first trial of the antiretroviral AZT. The drug, which is still used today as part of combination therapy, was tested on its own as “monotherapy”. HIV Network for Prevention Trials (HIVNET) was focused on HIV prevention trials, including vaccine and non-vaccine studies such as HIVNET 016, a landmark trial that found two doses of nevirapine (one to mother and one to newborn) slashed rates of vertical transmission. The AIDS Vaccine Evaluation Group (AVEG) focused on early-phase vaccine research. Established in 1989 and funded through 1997, the Community Programs for Clinical Research on AIDS (CPCRA) was an NIH-funded research enterprise that focused on community-driven and -based treatment research.

1999
-
2005

An era of expansion. Under the network structure launched in 1999, the HIV Vaccine Trials Network (HVTN) was distinct from the HIV Prevention Trials Network (HPTN). In this period, the HPTN launched the pilot phase of HPTN 052, the landmark study that showed that initiating antiretroviral treatment in people living with HIV at CD4 cell counts of 500 or above improved the clinical health of individuals and reduced the risk of onward transmission to primary sexual partners. The same period also saw the launch of the Step and Phambili vaccine trials by the HVTN.

2006
-
2012

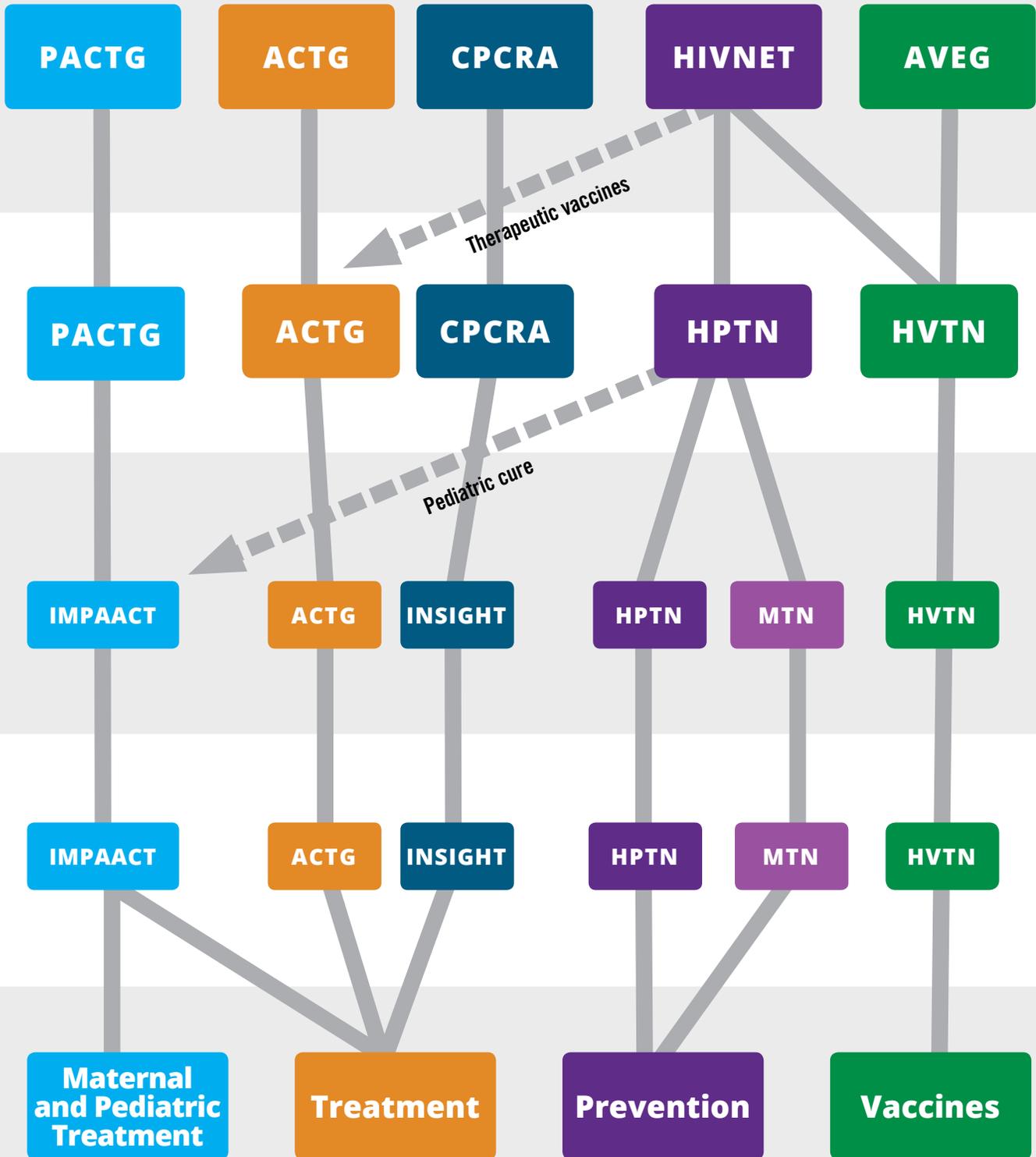
The “women’s prevention” moment. The Microbicide Trials Network (MTN) received funding in 2006 for trials focused on vaginal and rectal topical products (e.g., gels, rings, suppositories etc). In this period, the network launched VOICE—a study of oral PrEP and topical vaginal tenofovir gel—as well as trials of rectal microbicides. The INSIGHT network was created as a merger of two previous treatment-focused groups, and it launched ESPRIT, SMART and START, all trials of treatment in people living with HIV. They were designed to understand when to start ART, whether treatment interruptions were possible and how best to deliver lifelong ART. IMPAACT was launched as a merger of the PACTG and the perinatal science working group of the HPTN. During this time, initial results from HPTN 052 were released, showing benefits of treatment initiation at CD4 count above 500. Additional data were released from non-network PrEP and microbicide trials.

2013
-
2020

The era of evidence. By 2013, non-network trials of a vaccine and a microbicide had shown efficacy. Daily oral PrEP was approved by multiple regulators, and in 2015 it was recommended by the WHO. Nearly nine million voluntary medical male circumcision procedures had been conducted worldwide, following clinical trial evidence released in 2006. The MTN moved ahead with rectal microbicide research and one of the two efficacy trials of the dapivirine ring, which showed modest efficacy. The HVTN and the HPTN jointly launched two large-scale antibody-mediated prevention (AMP) trials. HPTN also launched two long-acting injectable efficacy trials, and the HVTN began two large-scale vaccine trials.

2021
-
2027

The future? NIH-funded prevention research networks will need to be able to identify and evaluate prevention options that people most at risk of HIV can use safely and consistently—in the context of an array of first-generation strategies like daily oral PrEP, dapivirine ring and possibly even long-acting injectable PrEP. The trials will be more complex to explain and recruit for and the science more sophisticated. Coordination around approaches to product selection, planning for product introduction and research that incorporates the needs and preferences of those most at risk of HIV will be as important as they have ever been.





The Enterprise Evolves

The Global HIV Vaccine Enterprise, an alliance of independent organizations dedicated to HIV vaccine research, formed an official partnership with the International AIDS Society in 2017, marking an end to its status as a free-standing entity and the beginning of a new chapter in its work. The Enterprise began as a conceptual collaborative framework for uniting the field. It was articulated in a *Science* article in 2003, and in the ensuing years, it has convened a range of virtual and in-person consultations and served as the secretariat for the “big tent” that houses the diverse stakeholders engaged in the search for an HIV vaccine. It also oversaw the launch of the HIV Research for Prevention (HIVR4P) conference, the only gathering devoted exclusively to biomedical prevention.

Since his appointment in 2012, the Enterprise was led by AVAC founder and former board member Bill Snow, who retired in late 2016. The same period has seen advances in vaccine and passive immunization clinical trials, basic science work on antibodies and immunogens, and much more. In its new iteration, the Enterprise programs will be housed at the International AIDS Society, which will convene the vaccine field on key issues and be responsible for HIVR4P. As the pages of this Report detail, there are major challenges and opportunities for the HIV vaccine field and the broader prevention enterprise today, and in the years to come. AVAC looks forward to working with the IAS in forthright and transparent engagement on these issues.

questions, acting on answers and a thorough, funded approach to incorporating BSSR into clinical trials and to funding standalone work.

- Market research with potential users early in the research life cycle to understand potential product preferences, barriers and facilitators of future uptake etc.
- Research that addresses different routes of transmission and is funded and prioritized based on global burden/need.
- Product introduction and implementation science, providing a framework for identifying and advancing products people will use and, for products that work in clinical trials, a mechanism for handing them off to groups with experience in product introduction and implementation science.
- Research with women in all their diversities.
- Research with infants, children and young people.
- Community and stakeholder engagement via implementation of the Good Participatory Practice guidelines beyond just individual trials and trial sites.

We think the current networks do not consistently value this work. The existing structure does not have a way to correct for this heterogeneity, which includes different policies with respect to trial conduct and standard of prevention, community and stakeholder engagement at the site and above site level, and incorporation of behavioral and social science research into trials. The MTN and IMPAACT are the two networks with an explicit focus on the prevention and treatment needs of cisgender women and adolescent girls. HVTN and HPTN both have significant investments in efficacy trials in women, particularly in sub-Saharan Africa, but they have not advanced these trials under an overarching women’s prevention research agenda or been guided by a set of core principles about how to talk about, implement and act on the findings of trials of products that women can use. If explicit steps are not taken to incorporate the strengths of the existing networks into the new structure, they could be lost or diminished, to the detriment of all. Strengths to maintain include:

- An explicit focus on the needs of cisgender girls and women and of all people who engage in anal sex, as articulated by the Microbicide Trials Network (MTN) and IMPAACT, which also focus on children and infants.
- Engagement of stakeholders, including civil society and other key decision-makers above the site and trial community level, to ensure that new trials and interventions are understood and adjusted based on real-life national contexts and community concerns. Each network has undertaken engagements at this level that have worked, and some have forged more durable partnerships. HPTN is the only network with a distinct ethics review process (distinct from regulation) that includes the Ethics Working Group and inclusion of someone with a particular ethical expertise in protocols. The MTN has shown a robust commitment to GPP at and beyond site and trial level. These relationships and best practices can be captured through the review and solicitation of civil society input—and must not be lost in the new network structure.

No shortcuts via long-acting products and no shortsighted plans that leave out implementation science

Dr. Carl Dieffenbach, the head of DAIDS, is a long-time friend and colleague of many new and veteran prevention advocates. He doesn't mince words, and in the straight-talking tour conducted in the run-up to the recompetition, he's been clear that the priority for the next generation of prevention is developing a product that's long-acting and systemic: a shot of antiretrovirals, a vaccine, an infusion of antibodies. The rationale? Many people have multiple vulnerabilities or sites of exposure. People have vaginal and anal sex. They have penetrative sex, and not all use the terms "vagina" and "anus" but prefer "front hole" and "back hole" or other non-gendered anatomical names. People have all types of sex and use drugs. So a prevention tool that protects all bodies and body parts, and one that works in the

Table 1 Prevention Paradigm, 2017–beyond

Different strokes for different folks		
Methods	Contraception	HIV prevention
Behavior	✓	✓
Barrier methods	✓	✓
Gels	✓	✗ <i>Proof of concept, but no product likely in near future</i>
Rings	✓	✓ <i>Under regulatory review</i>
Oral pill	✓	✓
Injectables	✓	? <i>1 LAI, 1 bnAb, 2 vaccines in Phase III; others in preclinical</i>
Implants	✓	? <i>Multiple in preclinical</i>
Surgical procedures	✓	✓
Treatment	N/A	✓

blood too—and lasts for a long time—has a lot going for it. And that's what Dr. Dieffenbach has argued: "We must develop prevention modalities that are safe, desired and highly effective. These tools should provide systemic protection irrespective of route of exposure." That's something that topical products can't do.

As AVAC and many other stakeholders have said, the fact that women in some trials of gels, rings and pills didn't use the product consistently says as much—or more—about research and how it is run as it does about what women want. Clinical trials may offer health services, counseling or other benefits that are highly desirable. Low adherence in the context of a trial does not mean that products won't be used in real life. And yet, four years later, people (including DAIDS leadership and, sometimes, other advocates)



Recommendations for Scientific Agenda and Decision-Making

- ▶ Investment in a product portfolio supported by scientific and behavioral/social scientific evidence about clinical efficacy and needs, preferences and priorities of prevention users, providers and payers.
- ▶ A cross-network strategic collaboration mechanism with budgetary and decision-making authority that guides the overall agenda with transparency and accountability.
- ▶ A fast-track, “hands-off” approach to implementation research on interventions, with an emphasis on efficiency, engagement with national governments and integration into combination prevention packages.

are confusing what is known—many women in trials did not use the products—with what is believed: women do not want and will not use the same products once efficacy is known. Some people can and will take daily oral PrEP. Some can and would use a microbicide. It is inaccurate and potentially dangerous to say otherwise.

Dr. Dieffenbach has also served as the spokesperson for the NIAID position that trials to date show that women don’t want to use adherence-dependent methods. In a blog on the issue, he wrote, “The candidate microbicides currently in the research pipeline have limited proven efficacy, and it has not been demonstrated that the most vulnerable users would choose or adhere to these products. Coitally dependent products, including condoms, require use with each sex act, creating a major adherence challenge.” In an interview with AVAC he said, more succinctly, “Women have run away from gels.” This statement isn’t true. In trials, women didn’t use the gel consistently; but that could be because of the research context, not the product.

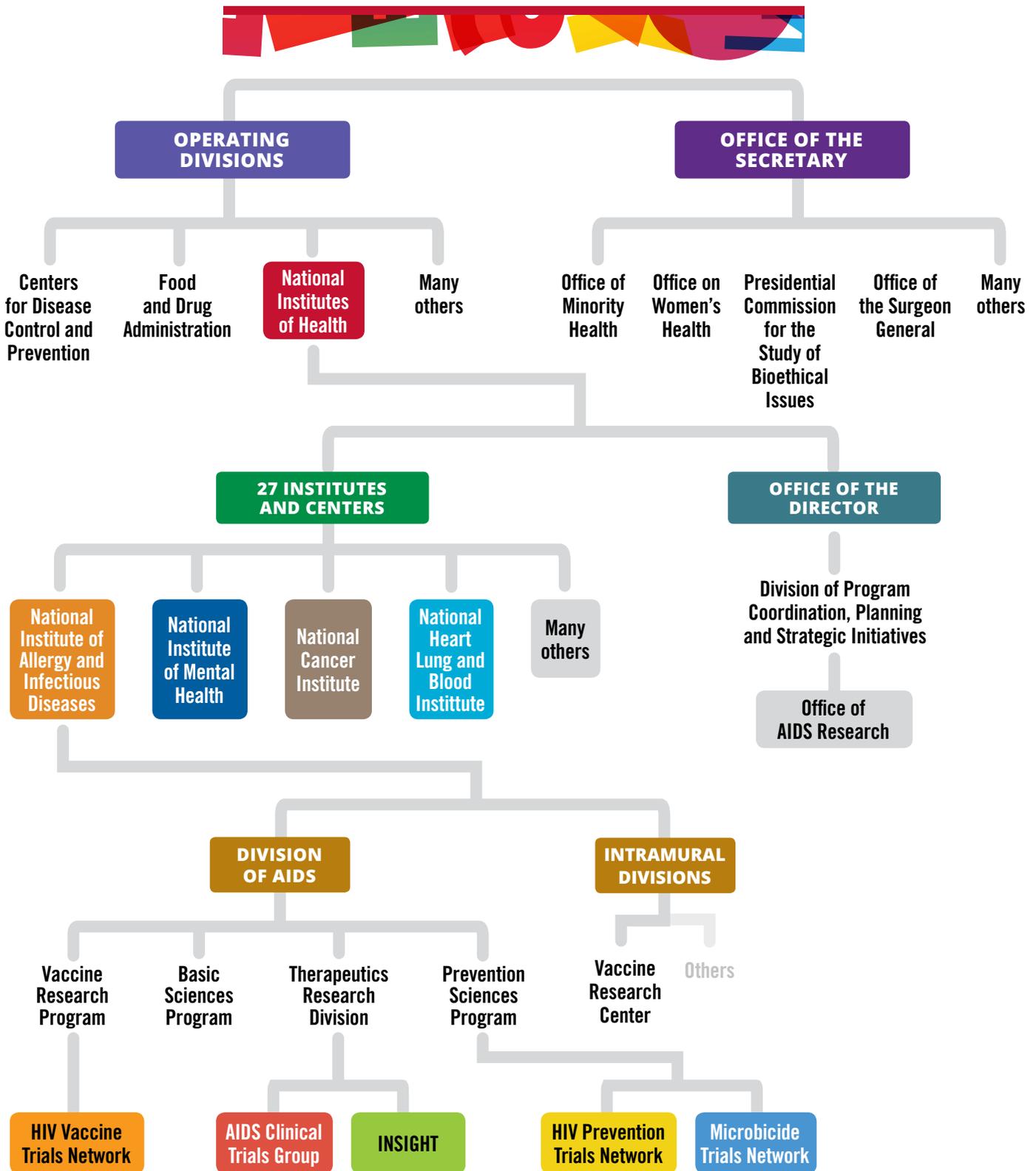
In response, advocates for specific products like topical microbicides have acted up and fought back, and AVAC has been proud to be part of this organizing. We have also been part of efforts to accelerate and support the introduction of oral PrEP, working alongside advocates and, in a newer role, providing technical support at the country and policy-maker level. And we remain steadfast in the pursuit of longer-acting methods and a vaccine. Women at risk of HIV need access to a range of options for simultaneously controlling fertility outcomes and reducing the risk of HIV. Research on these multipurpose technologies should be a priority for the next generation of trials.

All of this work—and much more—supports two conclusions that we feel must guide both DAIDS and all other research funders:

- ▶ There is no rationale either in public health or in HIV prevention for an exclusive focus on long-acting systemic products.
- ▶ Products are only as good as their programs and today’s clinical trials must anticipate introduction like never before. An emphasis on injectables without a solid plan for product introduction research will lead to an innovation pileup—lots of products but no working programs and no benefit to people.

For DAIDS and others, acting on these points means seeking out and integrating different types of information on preference, feasibility and more, and then being guided by those decisions, which cannot be confined to product siloes. The vaccine agenda cannot advance in parallel with the long-acting injectable agenda, and so on. In the DAIDS network context, there is no cross-network coordination mechanism within the mandate. The Office of HIV/AIDS Network Coordination (HANC), which works across the networks, has portions of this mandate in its mission statement, but it is not driving product portfolio decisions or comprehensive agendas of the type described in this section. The Office of AIDS Research (OAR) measures research against goals set

Figure 7 US HIV Research: A family tree



Deprioritizing Women's Lives in 2017

Playing with the Fine Print: Hormonal contraception and HIV risk

In early 2017, the World Health Organization (WHO) announced that it had reclassified progestogen-only contraceptives (such as DMPA, also known as Depo-Provera) in its Medical Eligibility Criteria (MEC) system, that is designed to support global consistency. This change shifted DMPA, the bi-monthly injectable NET-EN and a subcutaneous form of DMPA (marketed as Sayana Press (SP)) from a classification of “MEC 1” to “MEC 2.” A product with an MEC 1 classification can be used without restrictions; a product with a MEC 2 is one for which the “benefits outweigh the theoretical or proven risks” of the product.

WHO emphasized that this shift was motivated by a review of the available evidence and a commitment to women's rights to full information about the products they use in their bodies. This was a welcome validation of principles that women working on this issue have articulated for years.

But the celebration—such as it was—has been short lived. In the months following the MEC shift, not a single country has shifted its messaging to provide HIV-negative women with clear information that DMPA, NET-EN and SP all have clear benefits *and* could possibly and theoretically increase women's risk of HIV. Instead, the majority of programs that have engaged the MEC at all have seized on fine print from the MEC guidance stating that no woman should be denied DMPA or other methods because she is at high risk for HIV. This is absolutely true, and women working on this issue have made the informed choice of methods a clarion call. However, limiting the message to the fact that women deserve to choose their own method—without the counter-

balancing information that MEC 2 choices may, theoretically, affect a woman's HIV risk—is inadequate and selective at best. SP is the focus of a dynamic push involving FP2020, PATH, African countries, the Bill & Melinda Gates Foundation and many other funders. It's an easy-to-use method that could expand access to contraceptives in the many parts of the world where women struggle to gain access to comprehensive services. We're completely supportive of this and believe that the strengths of this method, and of the women who might use it, are such that full information about theoretical risks could be conveyed without jeopardizing introduction.

2018 will likely bring the results of the ECHO trial, a randomized study evaluating how DMPA, the Jadelle implant and the copper IUD affect women's HIV risk. Even this trial, as important as it is, won't settle the question since NET-EN and SP (not included in ECHO) have different traits than DMPA. If ECHO does find that DMPA increases women's risk of HIV, there will be no fine print to hide behind. Both NET-EN and SP will be impacted unless or until further research is done to see if they also heighten HIV risk. WHO, along with countries with high HIV prevalence and high DMPA use (largely East and Southern Africa) must start developing messages and programs that provide broader contraceptive choice, information and comprehensive HIV prevention, including daily oral PrEP where available. This way, the many women who do want to continue using DMPA or other methods will be able to do so whatever the findings. Those for whom a theoretical risk is of concern will be able to choose an alternative. This is a win-win situation that must be pursued. There is no time to lose.

The Global Gag Rule: An active front in the war on women

It's a dangerous time to be a woman on planet Earth. The past year has brought an assault on the programs, services and funding for comprehensive, evidence-based sexual and reproductive health services that all humans deserve, both in the US and worldwide. In the US, this year has seen a reckoning with the pervasiveness of sexual violence in women's lives—though the cases making headlines are largely focused on white men and women, leaving issues of race and class still under-discussed. There are many fronts in this fight—and in every instance, strong, resilient women and their allies are banding together as peaceful warriors, focused on their rights and those of their daughters and sisters, comrades and friends.

All of this work is negatively impacted and sometimes endangered by the expansion of the Global Gag Rule (GGR), as implemented by the Trump Administration in 2017. The GGR has historically barred foreign NGOs receiving US family planning funding from counseling about, referring to or advocating for the legalization of abortion as a family planning method. The expanded GGR applies this restriction to all US global health spending—approximately US\$8 billion in aid. It also bars countries from using funds from any source (including non-US funds) for abortion-related activities, as a condition for receiving US funding.

The damage is already underway. In an October 2017 report, Human Rights Watch found that in Kenya and Uganda, GGR-related changes “have resulted in a loss of training and equipment from nongovernmental groups for government health clinics, and widespread confusion about implementation.” In many contexts, confusion is leading NGOs to scale back services or messages that they may not even be required to shift.

A six-month review of the policy was underway at the end of 2017. It is imperative that the State Department

act on these early warning signs and do the following:

- Take steps to strengthen and expand comprehensive sexual and reproductive health programming for women, including post-abortion care, contraceptive access and HIV prevention. The purpose of the GGR is not to gut women's health services or to demolish the progress made in integrating HIV and SRHR to date. The State Department should protect its investments in the lives and health of women and children.
- Communicate clearly and frequently about what GGR compliance is and is not, to forestall any over-interpretation, chilling effect or unnecessary cessation of activities and services.
- Conduct ongoing and annually reported reviews of the impact of the GGR, including data on deaths from unsafe abortions, and report these findings to Congress.
- Grant case-by-case exemptions to mitigate the policy's harm.

AVAC itself has been impacted by the GGR, as some of our work on prevention research advocacy is funded by USAID, and includes onward granting to foreign NGOs working on HIV prevention, women's health and rights and other intersecting issues. As a failure to sign the GGR would have cut off significant funding for civil society work in this space, we undertook, starting in January 2017, intensive consultations with the groups that would be impacted to determine the course of action for ourselves and our partners. The decision was taken to accede to GGR compliance in AVAC's grant agreement with USAID. We accompanied this compliance, however, with the explicit statement that we opposed the policy and would work to mitigate its harm at every turn. Our partners continue to receive funding and to work without restriction on their core issues. It is a draconian and anti-health choice, and one that no coalition should have to face. We are grateful to our allies who have guided us through and now live with the consequences of our decision.

by a consultative process but has little to no recourse if NIAID disagrees with its priorities. NIAID itself must practice true transparency and coordination for these networks, perhaps via its existing Strategic Working Group, or using some version of HANC and OAR structures as models for a cross-network coordinating structure. Such structure could even inform the field about how to better set a truly comprehensive prevention agenda.

For DAIDS and for all stakeholders, user preferences must be part of the decision-making process in reality—and not just in rhetoric. DAIDS has been clear that understanding the user is essential, but it often rounds out these two truths with an inaccurate statement—that the young people, particularly girls and women, who are most at risk of HIV in sub-Saharan Africa can't and won't use adherence-dependent methods like daily oral PrEP. (To be fair, some microbicide activists also say the same thing.) As discussed in Section Two (p. 21), it is premature to use this logic. It's also dangerous to the delivery effort. The question shouldn't be settled by artful debate but through thoughtful rollout and monitoring. Even so, daily oral PrEP may not work in some contexts or communities.

Finally, DAIDS must foreground the importance of implementation science—in its own work and for the field. Research to find out how best to deliver proven products or packages of services isn't easy, and it isn't DAIDS' forte. All stakeholders, including DAIDS, must take concrete steps to avert the “innovation pileup” that might emerge if some of the products, antibodies or vaccines under consideration today show benefit. There needs to be a plan for funding countries and partners with proven

implementation science skills to support the introduction of newly proven products. High efficacy won't mean high impact unless there are programs that work. In the next iteration of networks, DAIDS should play to its strengths and build in mechanisms such as RFAs or protocol requirements that lay the groundwork for a handoff to partners that can do implementation science efficiently and well. As a first step, product introduction plans should be incorporated into the protocols for all products in clinical trials—an approach already used by the Wellcome Trust.

Recognize that HIV is global—and the research agenda must be, too

As the graphics on page 20 show, the US government funds the lion's share of HIV prevention research conducted worldwide. That's why this section is so focused on upcoming decisions about how this funding will be allocated, and how agendas will be set. But the decisions and funding cannot come from the US alone. In the context of the current application of the Global Gag Rule (see box, p. 17), it is particularly important that additional funders continue to add resources to the search for effective, safe and acceptable ways for women and adolescents to control their fertility and their HIV risk. And in every context, it is essential to diversify funding resources. This year's *HIV Resource Tracking Report* documents how funding is increasingly consolidated into large commitments from a handful of sources. It's a trend that can and should be reversed by expanded investments from Europe and from lower-middle and middle-income countries where research is happening—and where it is not, as South-South investment and collaboration is a core component of a robust research future.

Watch your language: What we'd like to see DAIDS and others say and do about the prevention pipeline

Advocates who have been working on DAIDS-related issues in recent months will be watching closely to see whether our feedback has been reflected in the “Funding Opportunity Announcement” (FOA) that DAIDS is expected to issue in early 2018. The FOAs set the tone, priorities and parameters for applications that research networks must submit. If a topic or issue isn't included in a FOA, it doesn't mean

it can't be added later, but it won't be what the proposals emphasize. In the table below, we capture what DAIDS has said so far about the MTN and HPTN—the two prevention trials networks that could change the most starting in 2020—and we share what we think the priorities should be in the FOAs—and for all research networks.

	What DAIDS has said in 2017	What AVAC thinks the priorities should be
Microbicide Trials Network	<ul style="list-style-type: none"> • While microbicides offer promise, and we are pleased to see the ring progress to regulatory review, the remaining microbicide research field faces substantial barriers to developing successful products. • The candidate microbicides currently in the research pipeline have limited proven efficacy, and it has not been demonstrated that the most vulnerable users would choose or adhere to these products. Coitally dependent products, including condoms, require use with each sex act, creating a major adherence challenge. For women, microbicide products designed for vaginal use do not protect during anal sex. Further, topical agents deliver a concentrated level of protection to a targeted tissue, but if that tissue tears, or the virus moves through the layer of protection, HIV infection can occur. • It is essential that the microbicide field complete ongoing studies to assess the feasibility of success for these modalities and continue to innovate new delivery methods that clear these obstacles. Despite the challenges that microbicides must overcome, we remain interested in and supportive of a preclinical agenda for concept discovery that focuses on improving desirability, adherence and efficacy. 	<ul style="list-style-type: none"> • Evaluate the HIV prevention product needs and preferences of vulnerable populations, including adolescent girls and young women, gay men and other men who have sex with men, trans women and US minorities utilizing user-centered design approaches. • Bring to licensure the systemic and topical candidates for vaginal and rectal use that show the most promise. • Evaluate and optimize strategies for HIV prevention, integrating behavioral and social science and biomedical strategies. • Evaluate the most promising candidates for multi-purpose prevention. • Evaluate and optimize the most promising next-generation PrEP products.
HIV Prevention Trials Network	<ul style="list-style-type: none"> • Develop tools that are: <ul style="list-style-type: none"> – Safe – Acceptable – Desired – Highly effective – Protective system-wide – Next generation, where appropriate • Define the needs of vulnerable populations and tailor-fit prevention strategies to them. • Interventions will include populations most at risk, including adolescents, young adults and US minorities. 	

US Funding for HIV Prevention R&D: A case for accountability, transparency and action

As the figures below show, the US government finances the lion's share of HIV prevention research and development, with European and host country governments, private sector and philanthropic

contributions rounding out the rest of the resources. A full breakdown of contributions by sector, as well as a look at how different donors invest in different interventions, can be found at hivresourcetracking.org.

Figure 8 US Public Sector Investment in HIV Prevention R&D, Compared to All Other Funding, 2012-2016 (US\$ billions)

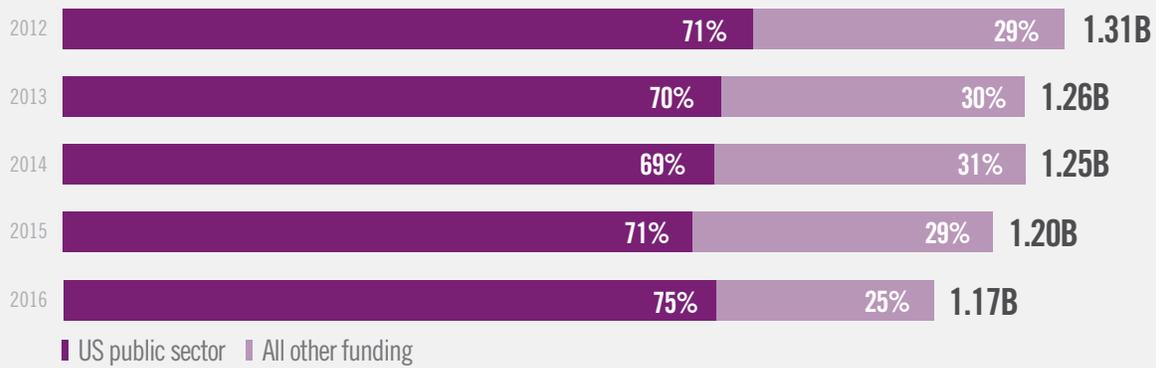
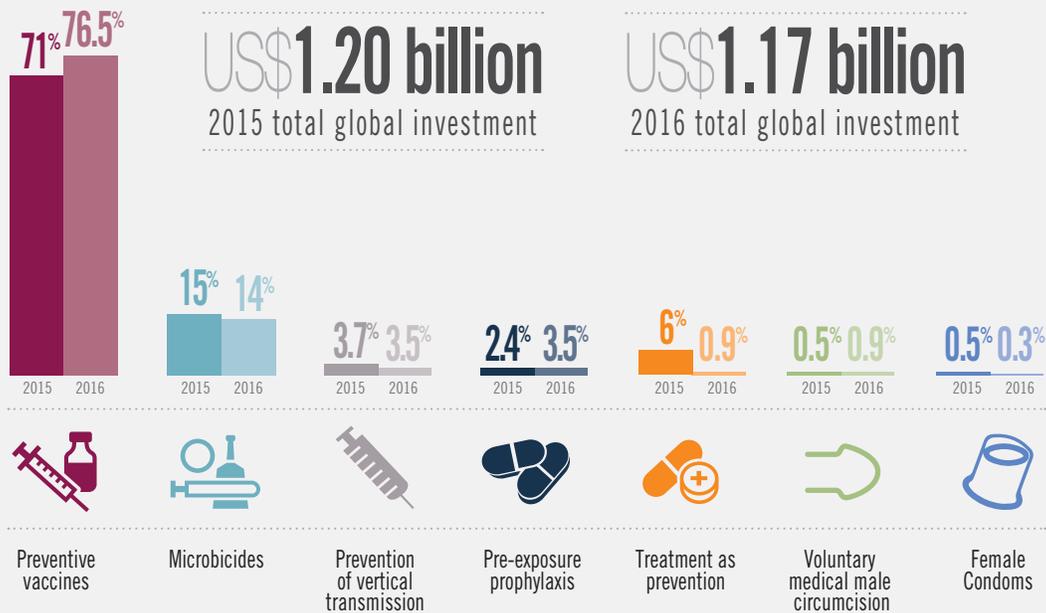


Figure 9 Total Global HIV Prevention R&D Investment by Prevention Option, 2015-2016



Resource Tracking for HIV Prevention Research & Development. *HIV Prevention Research & Development Investments, 2000–2016: Investment priorities in a challenging global health landscape to fund innovation.* www.hivresourcetracking.org.