US budget quagmire leaves global health funding in the lurch

In August, after a tense run-up to the default deadline, US lawmakers passed the Budget Control Act. The legislation that increased the debt ceiling contains $917 billion in cuts through 2021, which will probably affect core research agencies such as the National Institutes of Health, the National Science Foundation and the science office of the Department of Defense. But individuals involved in global health programs are also bracing for a hit come September, when Congress scrutinizes how to appropriate next year's federal budget, given the nation's tightened purse strings.

Global health leaders say they expect cuts across the board for the next fiscal year in programs that tackle HIV transmission, tropical disease reduction and infant mortality.

US-led programs likely to be affected include the Global Health Initiative (GHI), the US Agency for International Development (USAID) and the President's Emergency Plan for AIDS Relief (PEPFAR).

Some experts fear that the cuts could dampen recent successes in malaria control and HIV prevention. They add that, in addition to impeding overseas health programs in developing nations, the budget reductions might also trickle down through the economic slowdown to decelerate research spending in pharma, biotech and academia.

"We're on the cusp of research innovation in global health," says Kaitlin Christenson, director of the Global Health Technologies Coalition, an umbrella organization representing more than 30 nonprofits that aims to bring awareness of how technologies can be used in the developing world. Recent research has shown promising developments in HIV prevention, including potential vaccines, microbicides and once-daily pill regimens.

"Unless the funding continues, we won't be able to continue the momentum," she adds.

Appropriations for global health won't be known until after the August recess, but clues suggest that cuts are on the way. In July, the US House of Representatives Sub-committee on State and Foreign Operations Appropriations proposed the Global Health and Child Survival (GHCS) Account contribute $7.1 billion to the GHI budget for the 2012 fiscal year—$1.6 billion less than President Barack Obama's request and $700 million below this year's levels.

The uncertainty surrounding funding does not look set to be resolved anytime soon. On 3 August, the subcommittee postponed breaking down how proposed funding would be distributed. The House failed to vote on the general appropriations bill, and the Senate has not developed a companion bill yet.

In the 2011 fiscal year, the US maintained total funding for the GHI at $8.86 billion, a slim $50 million below the previous year's levels. "It is very difficult to plan ahead when the budgets are so uncertain," says Aaron Emmel, government affairs officer with PATH, an international global health nonprofit based in Seattle. "There are a lot of question marks [around] how the fiscal 2012 budget will ultimately end up."

"At this point, almost anything is at risk," Christenson says. "We need champions on the issues. When we're talking about global health funding, we're talking about lives."

Trevor Stokes

PrEP trial successes prompt cost-effectiveness questions

Clinical trial data are starting to pour in demonstrating that the HIV prevention strategy known as 'pre-exposure prophylaxis' is an effective way of keeping people at high risk of infection disease free. In July, researchers reported at the International AIDS Society Conference in Rome that taking an antiretroviral drug called Truvada offered a 73% protection rate for heterosexual couples in East Africa in which only one person had HIV. At the same meeting, the US Centers for Disease Control and Prevention also announced trial results demonstrating a 63% reduction in transmission among young adults in Botswana taking the pill.

Buoyed by these and similar findings reported last year among men who have sex with men, health policy experts and economists are now debating how best to roll out the strategy to those who might benefit most. Preliminary analyses, experts say, indicate that PrEP should be a cost-effective tool to address the HIV epidemic until more testing and treatment for the disease becomes available.

Last year, even before PrEP was known to be effective for heterosexuals, a team led by Carel Pretorius of the Futures Institute, a global health think tank based in Glastonbury, Connecticut, published a mathematical model assessing the resources needed to apply it. The analysis concluded that administering PrEP to young South African women could—in an optimistic scenario—prevent up to a quarter of all new cases of HIV in the targeted high-risk age group at a cost of as little as $12,500 per each averted infection. The model asserts that this constitutes a worthwhile investment, as long as the reach of antiretroviral treatment for HIV-positive individuals remains low in the country (*PLoS ONE* **5**, e13646, 2010).

In a similar vein but using a different cost metric, Rochelle Walensky, from Harvard Medical School in Boston has unpublished evidence showing that each year of life saved due to PrEP among a comparable South African cohort should cost just $3,600 when taking into account all downstream survival benefits and costs. That price would be considered by the World Health Organization to be "very cost-effective" since it falls well below the country's average annual per capita gross domestic product.

"There were so many people who expected us to say, 'Prove it's cost saving,'" says Walensky. "I thought that was a tall order, but I thought it would likely be cost effective."

In certain settings, PrEP can cost around $250 per year for a full dose of daily pills and the associated HIV testing and laboratory monitoring. That may sound cheap, but, given shrinking global health budgets around the world, researchers worry about whether the pills will find their way to those who need them most. "Things can be cost effective and even cost saving, but you've still got to find a big lump of cash," says Timothy Hallett, who studies resource allocation for HIV at Imperial College London.

Even with adequate funding, however, experts emphasize the moral imperative to assure access to medications for people known to carry the virus before giving limited drug supplies to those not yet infected. "I don't see how we could treat uninfected people without first treating infected people," says Arleen Leibowitz, a health economist at the University of California–Los Angeles.

But, outside the developing world, Leibowitz thinks that those willing to pay out of pocket for the drugs should have that option. "I would not deny PrEP to anyone who would be able to pay for it," she says. "If you want to do this with your money, that's perfectly legitimate."

Roxanne Khamsi