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## AIDSPAN REVIEWS AN ACADEMIC STUDY ON THE COSTS AND HEALTH IMPACT OF CONTINUED GLOBAL FUND SUPPORT FOR AR

A new publication from Aidspan by Dr David McCoy reviews a published academic study that predicted the long-term costs and health impact that would result if the Global Fund continues its support of programmes providing antiretroviral therapy (ART) to 3.5 million people, but did not enrol any additional patients in these programmes. The original study, by John Stover and other researchers from the Futures Institute and the Global Fund, also discussed what may be done to minimise future costs while maximising health impact.

The study showed that for a patient currently on first-line treatment, the per-patient cost in 2011 is 39% due to medicines, 34% due to laboratory testing, and 26% due to service delivery. However, in the case of a person on second-line treatment, medicines make up 80% of the total cost. (The study excluded the costs of “above-facility-level” activities such as training health workers, and monitoring and evaluation.)

The review described the model used by the researchers to predict the future survival rates of the 3.5 million patients, the number of patients likely to have to migrate from first-line treatment regimens to the more expensive second-line regimens, and the future costs of treatment.

As a result of modelling different assumptions, the researchers produced a range of possible financial outcomes. Much of this variation depended on assumptions about the future price of medicines. McCoy pointed out that it might be possible to make cost savings by shifting a greater proportion of ART to primary care and community-based settings, and by developing cheaper point-of-care diagnostics. McCoy also said that the study points to the need to press for a continued reduction in ARV prices, especially in

relation to second-line treatments, as well as the need to optimise treatment quality so that patients can be retained on first-line regimens for as long as possible.

The study projected that if the price of medicines remains constant, the total cost of providing ART to surviving people among the 3.5 million patients would decline from \$1.9 billion in 2011 to \$1.7 billion in 2020, but the cost per patient would go up from \$543 to \$739 because of the increasing use of second-line regimens. If the price of medicines decreases in ways that the researchers consider possible, the 2020 cost would instead be \$1.14 billion (\$495 per surviving patient). But if more routine use of viral load monitoring leads to higher migration rates from first-line to second-line regimens, the 2020 costs would be about \$2.3 billion, i.e., higher than the 2011 costs.

As far as health impact is concerned, the study predicted that of the 3.5 million people currently receiving ART through Global Fund-supported programmes, 2.3 million would still be alive in 2020 if they continue to receive treatment. However, the proportion of patients receiving second-line regimens would rise from 2.5% in 2009 to 24% by 2020, at which time patients on second-line regimens would account for about 50% of total costs. By contrast, if ART were to be discontinued, all 3.5 million people would be dead by 2020.

The study only estimated future costs as they relate to the 3.5 million individuals who receive ART through programmes financed in part by the Global Fund. Of course, the global need for treatment and financing of HIV involves a far larger number of individuals. According to UNAIDS, global funding for ART would have to expand to \$7 billion per year by 2015 to achieve 80% coverage of those with CD4 counts under 200 cells/mL (and a further \$3.5 billion to achieve 80% coverage under the WHO's new expanded treatment eligibility criteria covering all those with CD4 counts under 350 cells/mL). McCoy points out that based on another study (in *The Lancet*), the total cost of carrying out all activities required to ensure an effective response to HIV/AIDS – prevention, treatment for all people worldwide who need it, and care and support – would likely plateau out at about \$20 billion per year.

According to McCoy, in light of the current financial constraints that are already being imposed on donor programmes for ART, not to mention the inadequate levels of funding in many countries for basic and essential primary health care, the study by Stover et al “brings to the surface a sobering picture in which the need for treatment is likely to increasingly outstrip the available supply of funding.”

“Aidsplan Review of a Study on the Costs and Health Impact of Continued Global Fund Support for Antiretroviral Therapy” is available on the Aidsplan website [here](#).

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