

HIV/AIDS Treatment and Prevention in India: Modeling the Costs and Consequences

Mead Over, Peter Heywood, Julian Gold,
Indrani Gupta, Subhash Hira and Elliot Marseille

Abstract

How should governments respond to the increasing domestic and international pressures to finance antiretroviral therapy for AIDS patients? Once prohibitively expensive outside rich countries, antiretroviral therapy is now increasingly affordable, especially in India where patent laws and a dynamic pharmaceutical industry have facilitated the production and marketing of some of the best available drug combinations at prices below a dollar a day. This title projects the future implications of three alternative AIDS treatment financing policies for the health burden of AIDS in India and for its overall health expenditures. The Indian government's 2004 treatment initiative contains elements of all three of these options. Written by an interdisciplinary team of AIDS experts, the book presents new data on the supply and demand for antiretroviral treatment in India and new models of the epidemiological effects and the financial costs of alternative policies. The book shows that the lower prices of antiretroviral therapy, plus the fact that therapy can reduce transmission by the treated patient, imply that such therapy could save healthy years of life at a cost of between \$146 and \$280 per year. However, these conclusions depend on the assumption that treatment has no effect on risk behavior in key populations which account for most of the epidemic's spread. Sensitivity analysis reveals that multiplier effects due to behavioral responses would overwhelm the direct biological effects of treatment, leading the authors to recommend that India proceed cautiously. Careful monitoring of the population's response to treatment availability should suggest how to maximize the beneficial effects of treatment on risk behavior and to avoid the perverse effects.